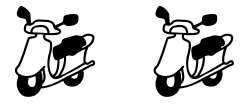
Student ID. _____ *Kindergarten (K2)* Set 1

Time Allowed :15 minutes

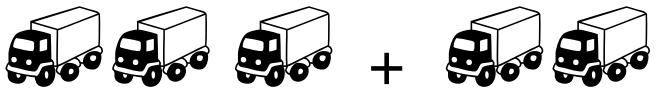
Score / 600

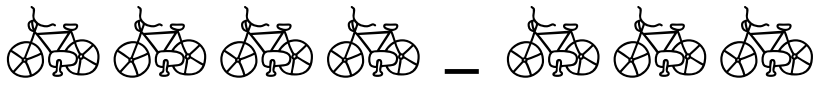
Part 1. Multiple Choice ***(Each question 10 marks. Total 100 marks)***

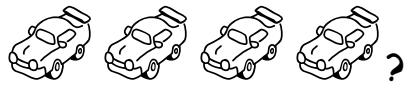
(元：dollars)

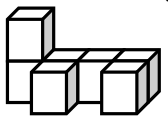
( )❶  = ① 1 ② 2 ③ 3

( )❷  = ① 5 ② 6 ③ 7

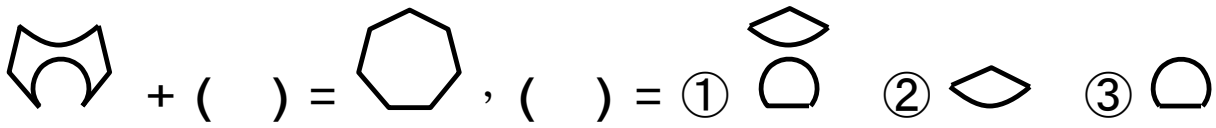
( )❸  = ① 5 ② 6 ③ 7

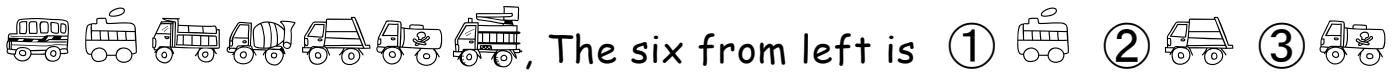
( )❹  = ① 1 ② 2 ③ 3

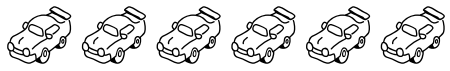
( )❺ How many  less than  ? ① 1 ② 2 ③ 3 cars

( )❻  = ① 5 ② 6 ③ 7

( )❼  = ① ② ③

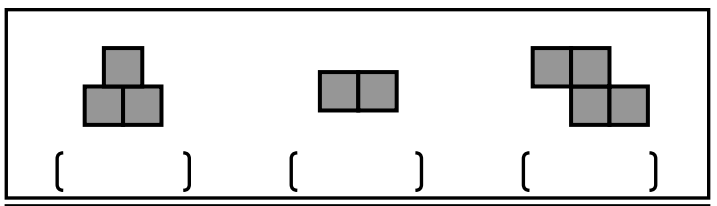
( )❽  + ( ) = , ( ) = ① ② ③

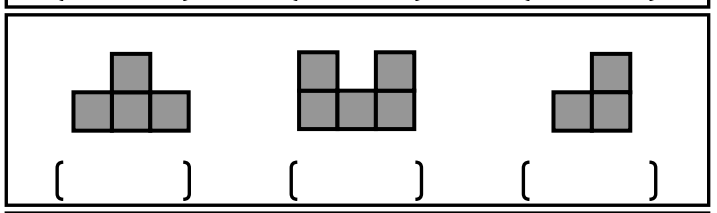
( )❾  , The six from left is ① ② ③

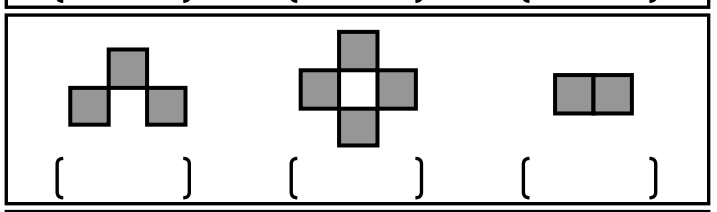
( )❿  , How many cars in total? ① 5 ② 6 ③ 7 cars

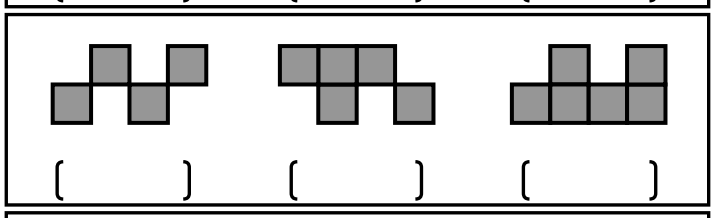
Part 2. Fill in the blanks ***(Each question 10 marks. Total 100 marks)***

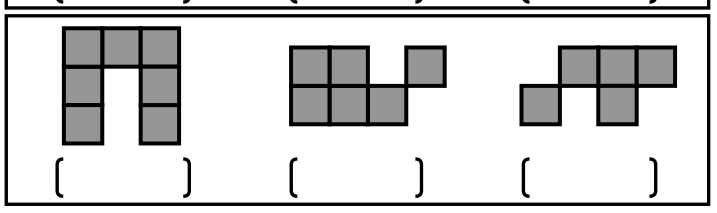
(1) Which one has more square? Tick ✔

❶ 

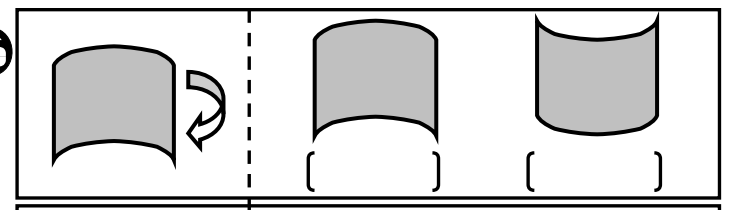
❷ 

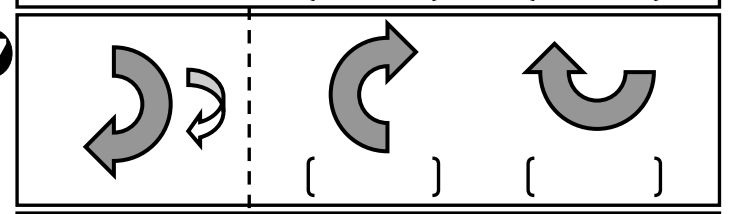
❸ 

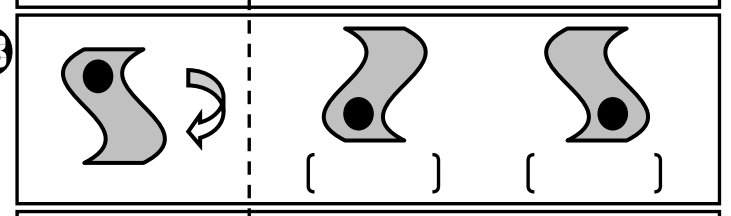
❹ 

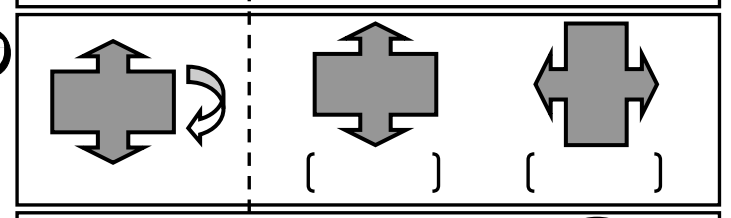
❺ 

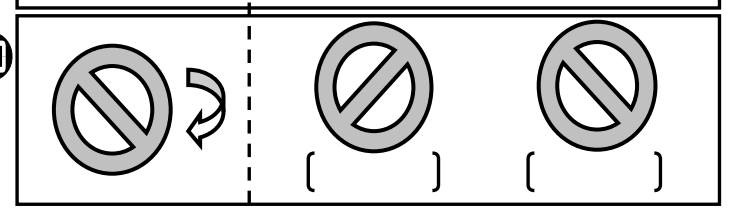
(2) Which is the shape after reversal? Tick ✔

❻ 

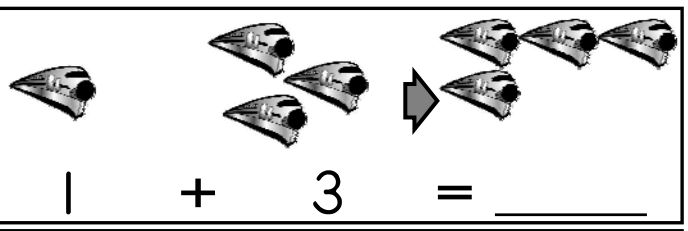
❼ 

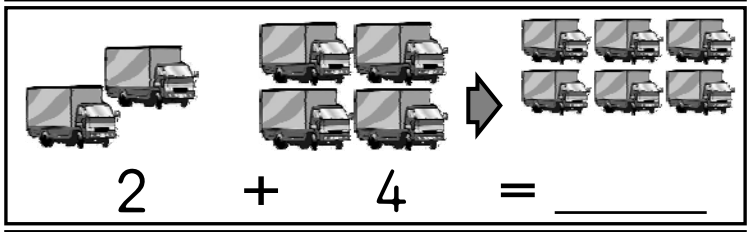
❽ 

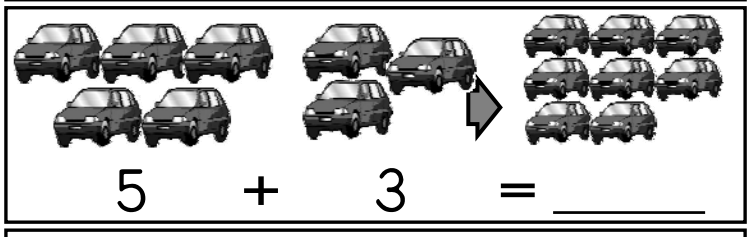
❾ 

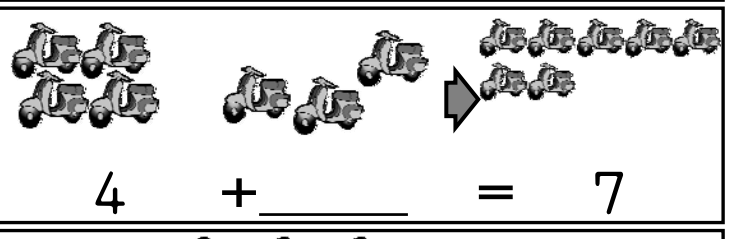
❿ 

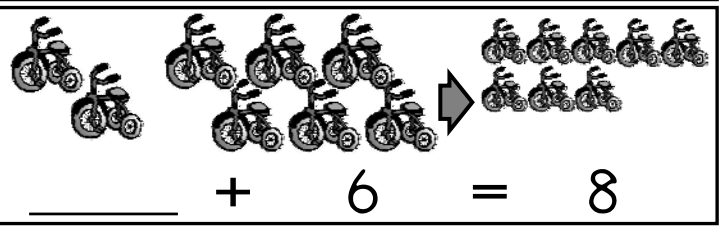
Part 3. Calculations *(Each question 10 marks. Total 100 marks)*

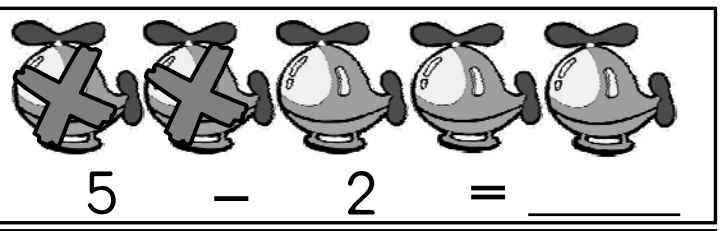
❶ 
1 + 3 = _____

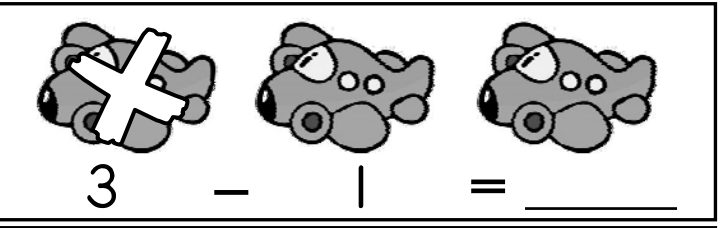
❷ 
2 + 4 = _____

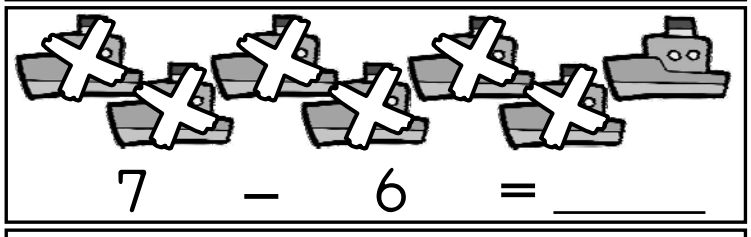
❸ 
5 + 3 = _____

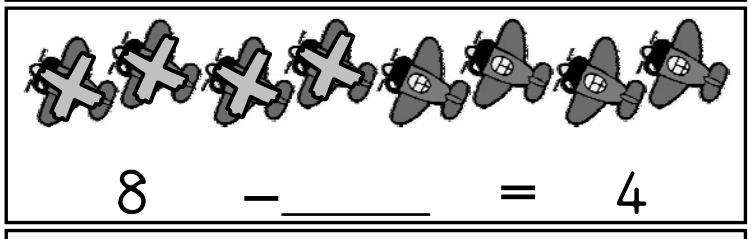
❹ 
4 + _____ = 7

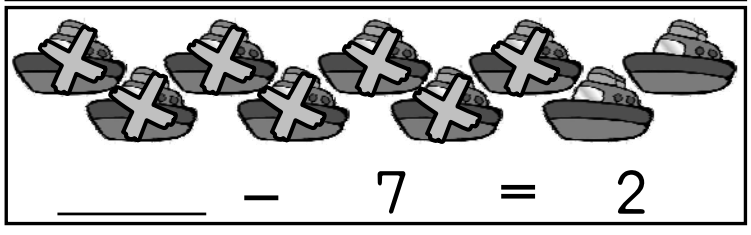
❺ 
_____ + 6 = 8

❻ 
5 − 2 = _____

❼ 
3 − 1 = _____

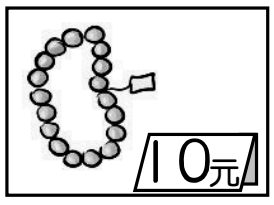
❽ 
7 − 6 = _____

❾ 
8 − _____ = 4

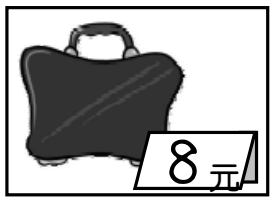
❿ 
_____ − 7 = 2

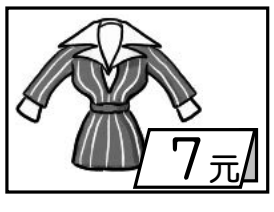
Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

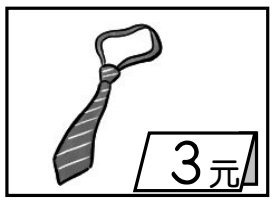
(1) Match picture to the correct price (元 : dollars)

❶ 

❷ 

❸ 

❹ 

❺ 

● 1元 1元 5元

● 1元 1元 5元 1元

● 1元 1元 1元

● 1元 1元 1元 1元 1元

● 10元

(2) Using 10元 to buy something,

how much money will remain?

❻ 
7 dollars

remaining _____ dollars

❼ 
2 dollars

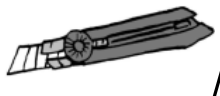
remaining _____ dollars

❽ 
6 dollars

remaining _____ dollars

❾ 
10 dollars

remaining _____ dollars

❿ 
4 dollars

remaining _____ dollars

Kindergarten (K2) Expert Level Math Challenge Questions

Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶  = ①  ②  ③ 

( )❷ 7 − □ + 4 = 9，□ = ① 1 ② 2 ③ 3

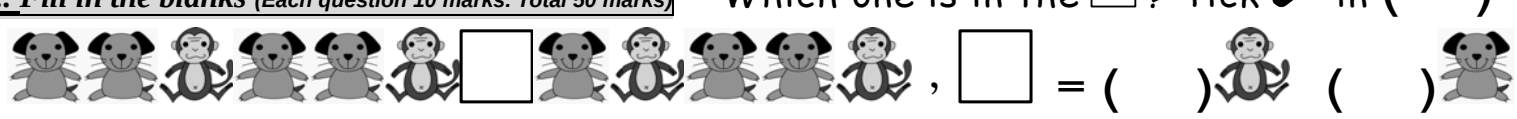
( )❸ 6 □ 2 − 3 = 5，□ = ① + ② − ③ =

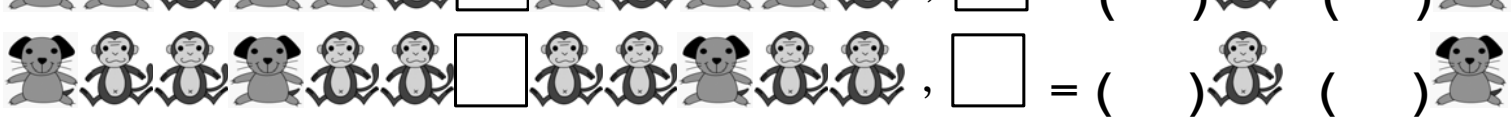
( )❹  , What number is  from the left side? ①6 ②7 ③8 cars

( )❺ There are  ,  come in, and  drives away, how many are left? ① 1 ②2 ③3 cars

Part 2. Fill in the blanks (Each question 10 marks. Total 50 marks)

Which one is in the □? Tick ✔ in ( )

❶ 

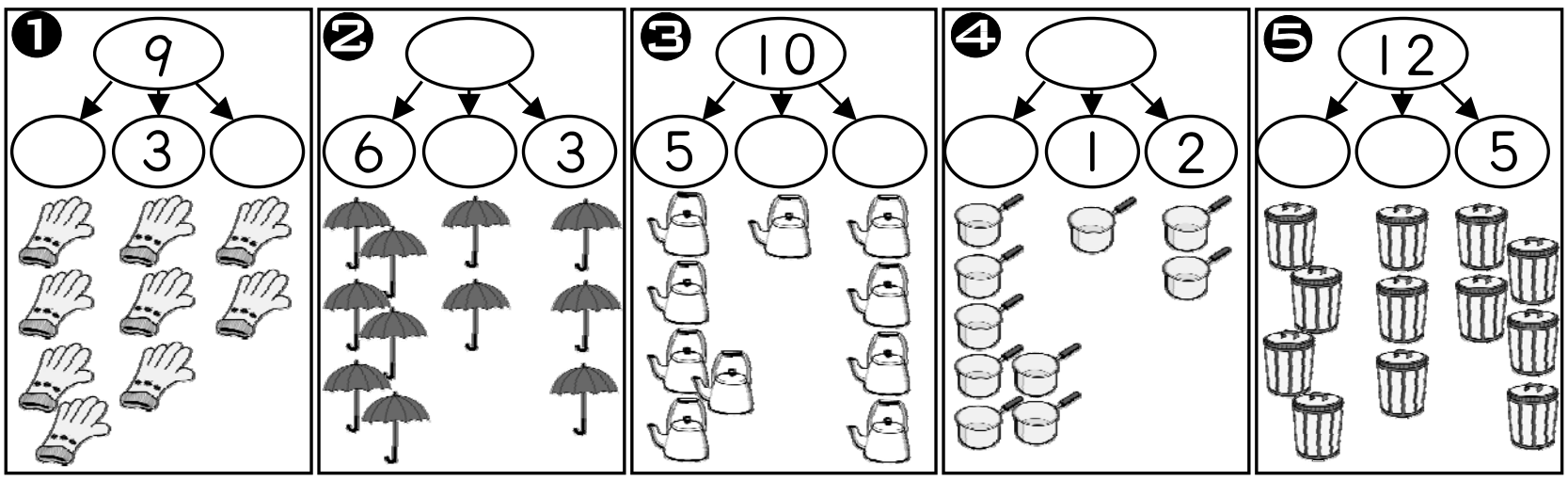
❷ 

❸ 17 ➡ 14 ➡ 11 ➡ _____ ➡ 5

❹ 6、5、7、2， The even numbers are _____ and _____.

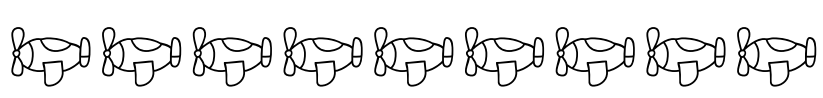
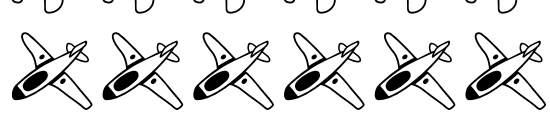
❺ 4、3、8、1， The odd numbers are _____ and _____.

Part 3. Calculations (Each question 10 marks. Total 50 marks)



Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

Matching two sides have the same answer.

❶	9 − 2	•	• 
❷	8 + 1	•	• 
❸	7 − 4	•	• 
❹	6 + 0	•	• 
❺	5 − 3	•	• 

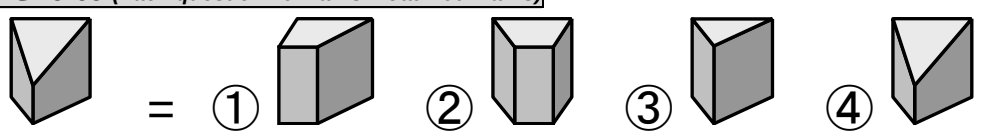
Score / 600

Student ID. _____ *Kindergarten (K3)* Set 1

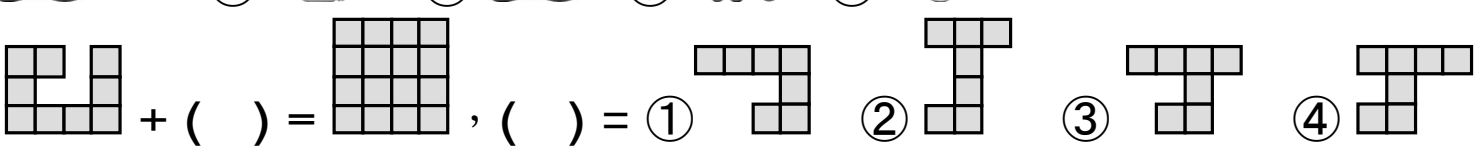
Time Allowed :15 minutes

Part 1. Multiple Choice *(Each question 10 marks. Total 100 marks)*

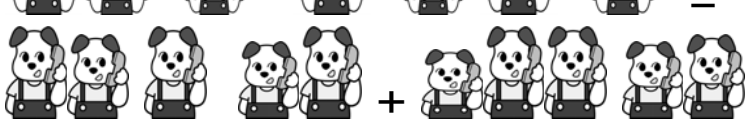
(元 : dollars)

( )❶  = ① ② ③ ④

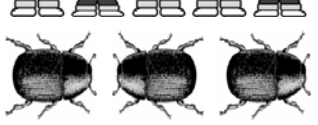
( )❷  = ① ② ③ ④

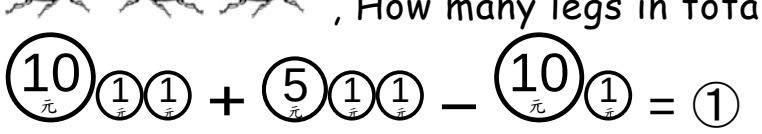
( )❸  + ( ) = , ( ) = ① ② ③ ④

( )❹  = ① 7 ② 8 ③ 9 ④ 10

( )❺  = ① 7 ② 8 ③ 9 ④ 10

( )❻  = ① 1 ② 2 ③ 3 ④ 4

( )❼  , How many legs in total? ① 12 ② 18 ③ 9 ④24 legs

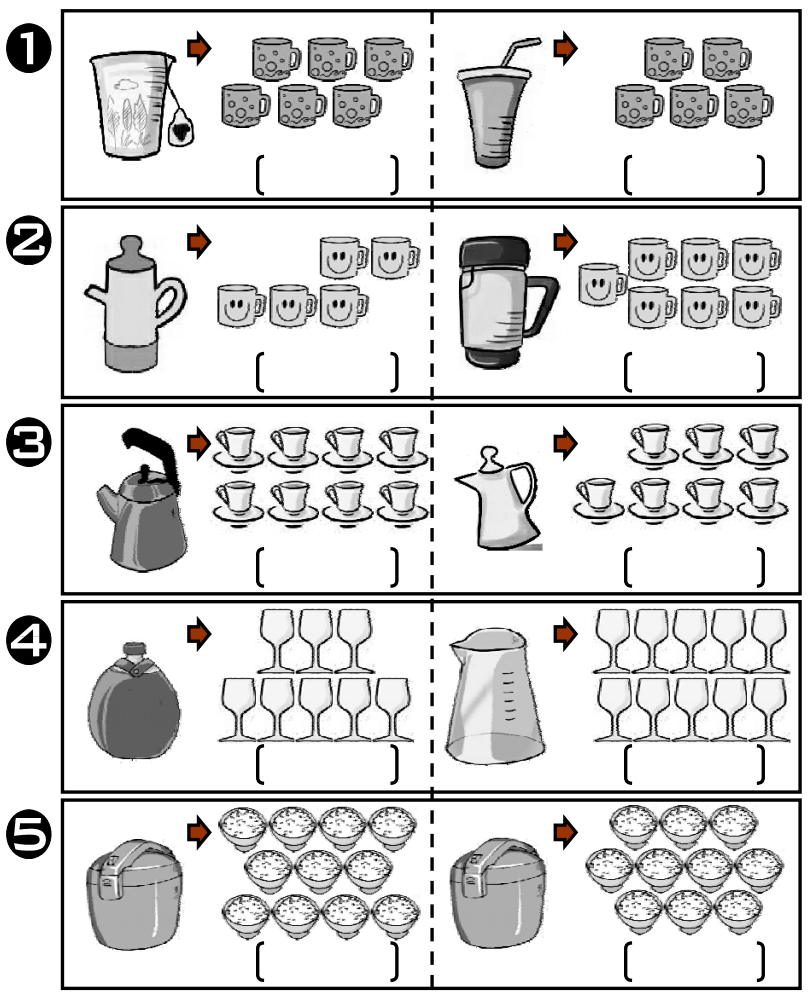
( )❽  = ① 7 ② 8 ③ 9 ④ 10 dollars

( )❾ How much is  more than ? ①11 ②12 ③13 ④14 dollars

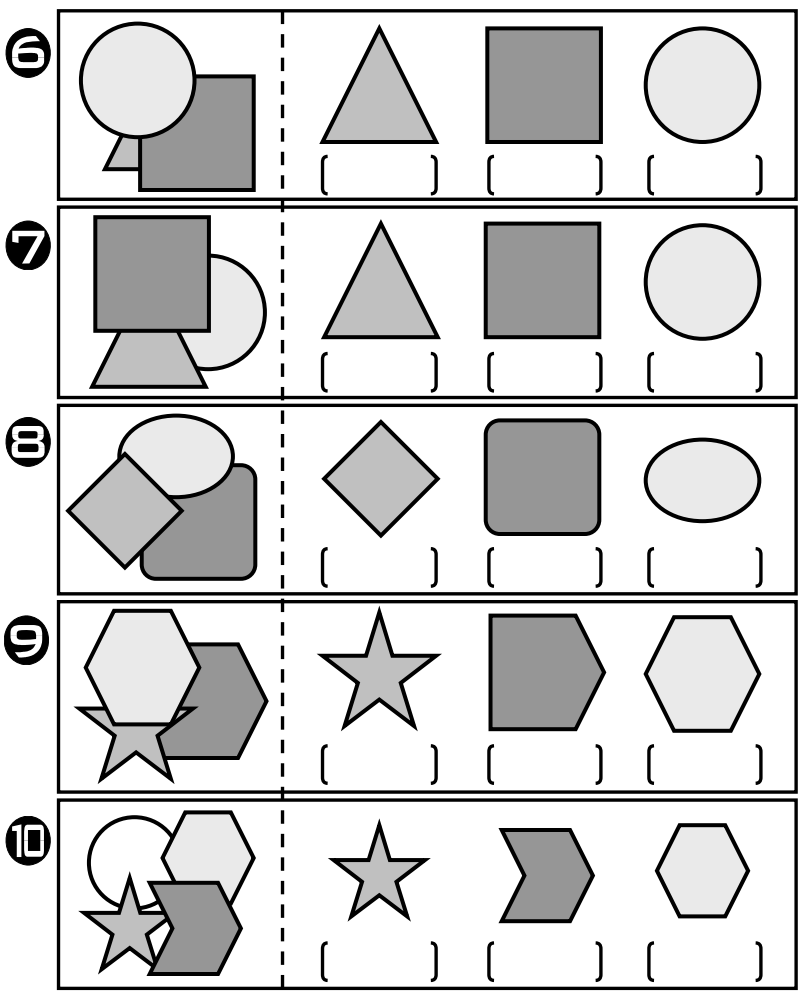
( )❿ 21 → □ → 25 → 27 → 29 , □= ① 21 ② 22 ③ 23 ④ 24

Part 2. Fill in the blanks *(Each question 10 marks. Total 100 marks)*

(1) Which one has more capacity? Tick ✔



(2) Which one is at the front? Tick ✔



Part 3. Calculations *(Each question 10 marks. Total 100 marks)*

❶ 8 + 5 = _____

❷ 5 + 9 = _____

❸ 4 + 7 = _____

❹ 2 + _____ = 16

❺ _____ + 11 = 20

❻ 15 − 3 = _____

❼ 13 − 8 = _____

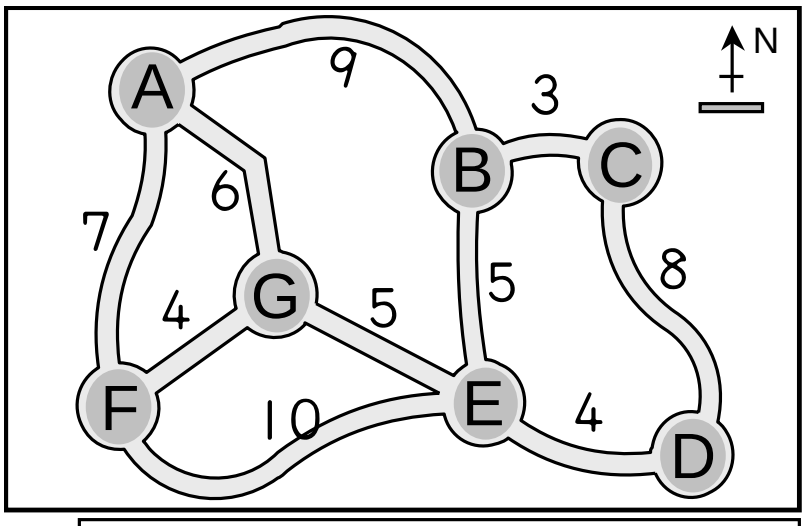
❽ 17 − 16 = _____

❾ 20 − _____ = 12

❿ _____ − 9 = 9

Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

(1) Calculate the distance.



❶ A → G → E = _____

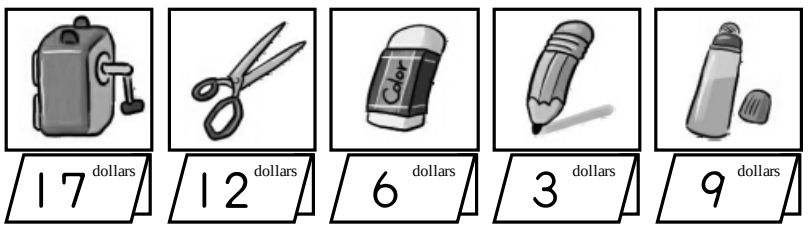
❷ G → E → B = _____

❸ A → G → E → D = _____

❹ B → C → D → E = _____

❺ A → B → C → D = _____

(2) Calculate the amount. (元：dollars)



❻ + = _____ dollars

❼ + = _____ dollars

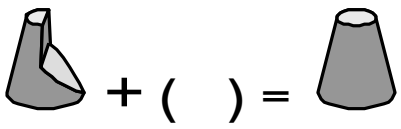
❽ + = _____ dollars

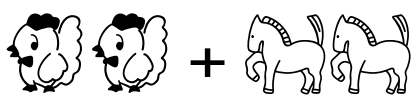
❾ − = _____ dollars

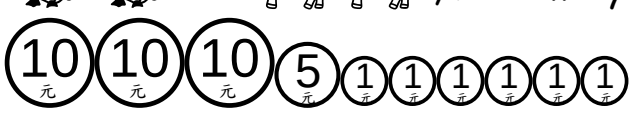
❿ − = _____ dollars

Kindergarten (K3) Expert Level Math Challenge Questions

Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶  , ( )=①  ②  ③  ④ 

( )❷  , How many feet are there? ①8 ②12 ③16 ④14 feet

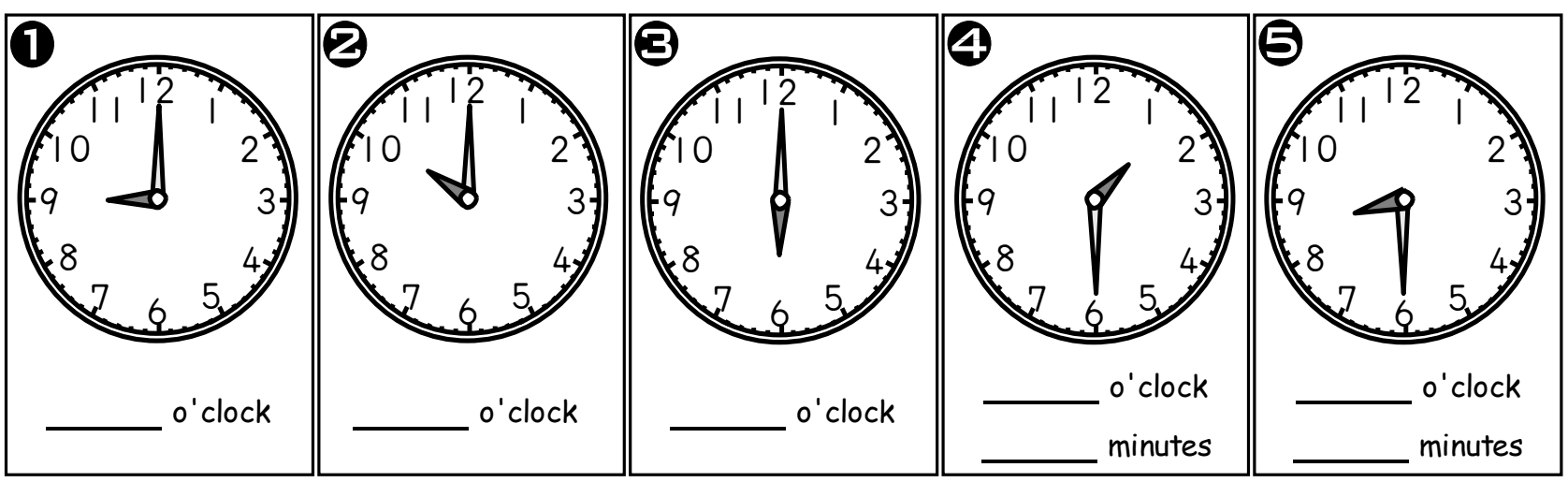
( )❸  = ① 41 ② 51 ③ 56 ④ 46 dollars

( )❹ 28 → 26 → □ → 22 , □ = ① 25 ② 22 ③ 23 ④ 24

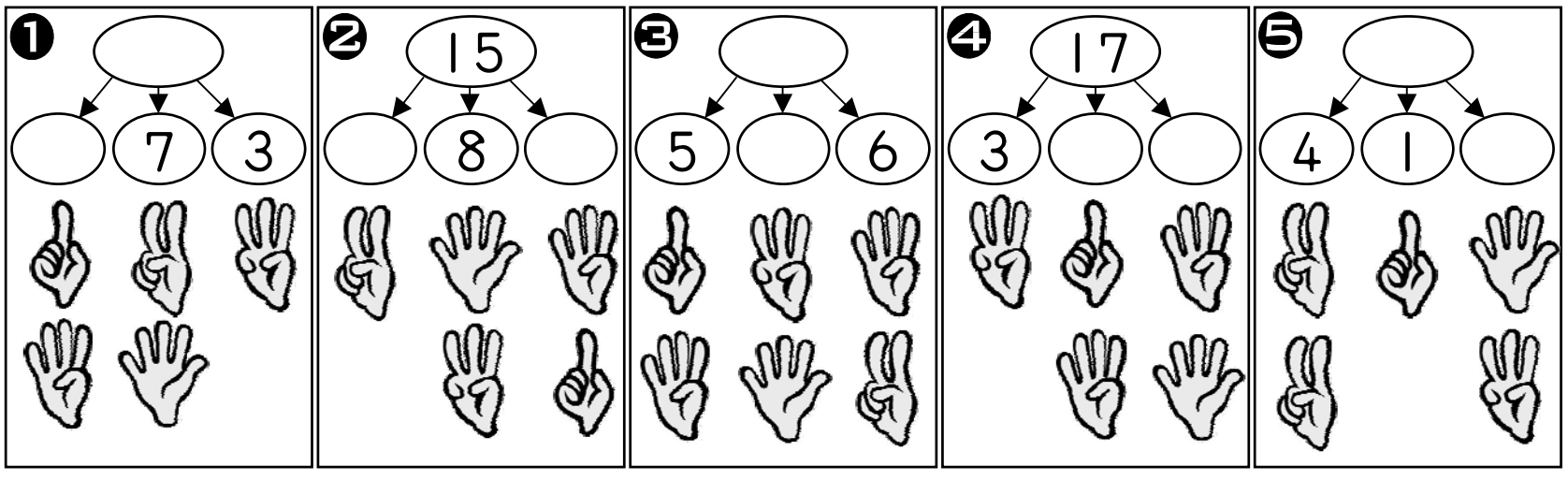
( )❺ 18 + 7 □ 5 = 20 , □ = ① + ② − ③ = ④ ×

Part 2. Fill in the blanks (Each question 10 marks. Total 50 marks)

Find out what time is it?



Part 3. Calculations (Each question 10 marks. Total 50 marks)



Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

Matching two sides have the same answer.

❶	3 + 4 + 5	•	• 10 − 4 − 3
❷	9 − 1 + 6	•	• 15 − 7 + 4
❸	2 + 8 − 7	•	• 7 + 8 − 4
❹	10 − 2 + 3	•	• 6 + 1 + 10
❺	7 + 6 + 4	•	• 9 − 3 + 8

Student ID. _____

Primary 1

Set 1

Time Allowed :15 minutes

Score / 600

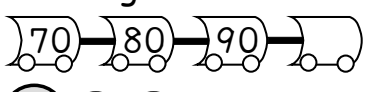
Part 1. Multiple Choice *(Each question 10 marks. Total 100 marks)*

(元 : dollars)

( )❶ Which one is most difficult to roll ? ①  ②  ③  ④ 

( )❷ The right hand equation is correct? ① correct ② incorrect ③ whatever ← $\begin{array}{r} 18 \\ -5 \\ \hline 13 \end{array}$

( )❸ The long hand makes one circle. Its mean how many minutes passed? ①10 ② 5 ③ 30 ④ 60 minutes

( )❹  , which number to fill in the  ? ① 100 ② 99 ③ 110 ④ 60

( )❺  = ① 78 ② 88 ③ 83 ④ 93 dollars

( )❻ There are  , Can buy 10 dollars eraser how many pieces? ① 1 ② 2 ③ 3 ④ 4 pieces

( )❼ 17+1 = 8+10 , this equation is correct? ① correct ② incorrect ③ whatever

( )❽ A+69 = 96+B , A and B which one is larger? ① A ② B ③ Same

( )❾ 45-□ answer is bigger than 30. □ may be ① 21 ② 22 ③ 15 ④ 14

( )❿ One end of the pencil is aligned to the ruler scale 0, one end to scale 15. What is the length of this pencil? (units : cm) ① 10 ② 5 ③ 15 ④ 14 cm

Part 2. Fill in the blanks *(Each question 10 marks. Total 100 marks)*

❶ In the Leap year minimum number days of the month is _____ days.

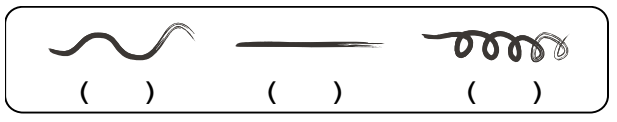
❷ 8:00, once the long hand makes one circle, it will be _____ o'clock.

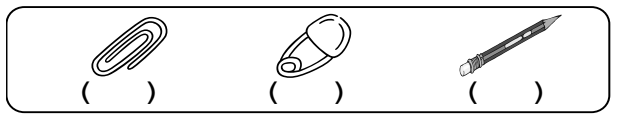
❸ Every _____ days there will be a Sunday.

❹ At least _____ tens need to be added together to be greater than 71.

❺  is the two-digit number. The possible maximum number of covered can be _____.

Which one is a straight line? Tick ✔

❻ 

❼ 

Matching the problem to the correct equation.

❽ Martin had 11 dollars but he spent 5 dollars. How much does he have left? ● ● 6+5=11

❾ There were 6 frogs, and 5 more hopped by, how many are there? ● ● 6−5=1

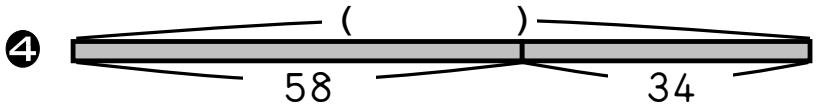
❿ There were 6 apples, but 5 were eaten. How many are left? ● ● 11−5=6

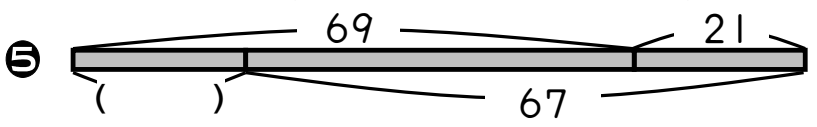
Part 3. Calculations *(Each question 10 marks. Total 100 marks)*

❶ 87 − 65 = _____

❷ 40 + 30 + 20 = _____

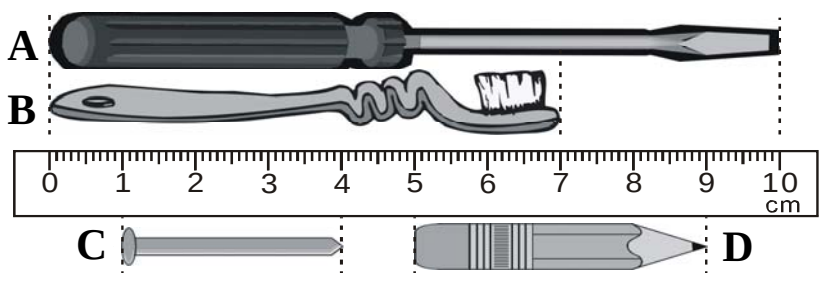
❸ There are _____ numbers that are greater than 39 and less than 51. (Nor including 39 and 51)

❹ 

❺ 

❻ $\begin{array}{r} 94 \\ -\ 31 \\ \hline \square \end{array}$

❼ $\begin{array}{r} 70 \\ -\ \square \\ \hline 28 \end{array}$



❽ Difference between **A** and **C** is _____ cm.

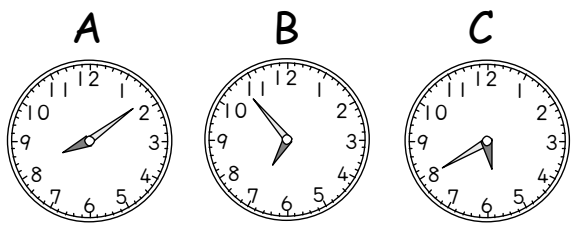
❾ Difference between **B** and **D** is _____ cm.

❿ _____ and _____ are connect together just 10 cm.

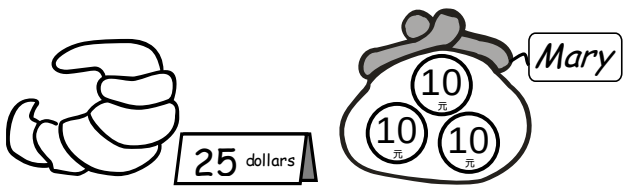
Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

( )❶ What ranked place is  ?

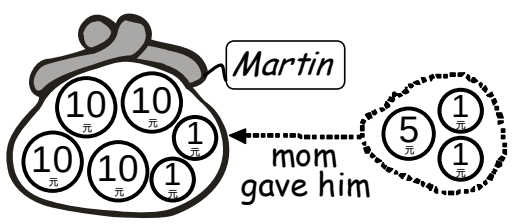
( )❷ Which clock shows the time between 5 o'clock and 6 o'clock?



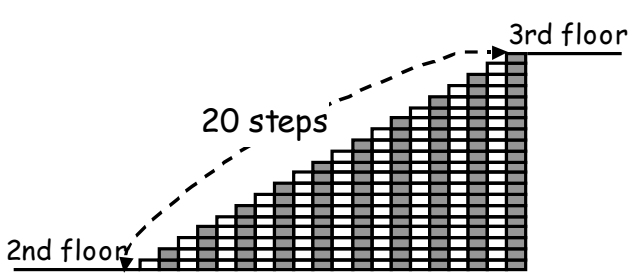
( )❸ *Mary* has 30 dollars. Is it enough to buy fries that cost 25 dollars?



( )❹ *Martin* has 42 dollars. Mom gave him 7 dollars more. *Martin* has a few dollars now?

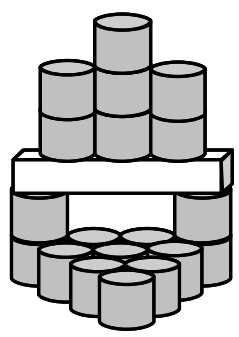


( )❺ There are 20 steps in the stairs on each floor. From the 3rd floor to the 2nd floor. How many steps are there?

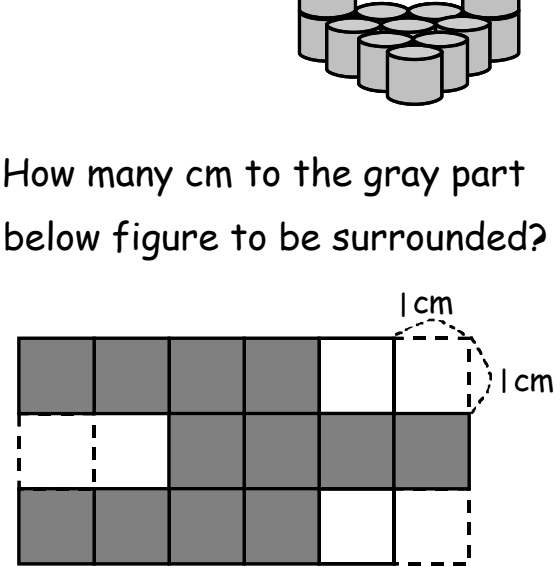


( )❻ 9 tens minus 3 tens are how many tens?

( )❼ How many  are used below?



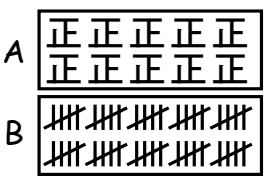
( )❽ How many cm to the gray part below figure to be surrounded?



( )❾ *Melody* has 11 pencils more than *Helen*. *Helen* has 13 pencils. How many pencils are there in total?

( )❿ *Daniel* has 50元 10元 10元 5元 1元 1元. Want to buy a 75 dollars book. He has already paid 50元. How much more will him have to pay?

Primary 1 Expert Level Math Challenge Questions



Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶ Which one has more tally marks? ① A ② B ③ Equal

( )❷ Which one is not made up of two identical shapes? ①  ②  ③  ④ 

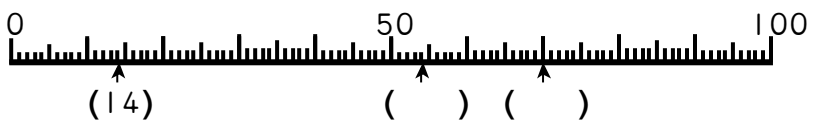
( )❸ With a 100 元 was replaced to 10元 and 5元. There are how many kinds of method to replaced? ① 11 ② 12 ③ 9 ④ 10 kinds

( )❹ Which answer is different from the others? ① 78-62 ② 99-83 ③ 21-4 ④ 87-71

( )❺ *John* can only have one birthday every 4 years. His birthday is
① 1st January ② 29th February ③ 31st March ④ 1st April

Part 2. Fill in the blanks (Each question 10 marks. Total 50 marks)

❶ Fill in the correct number on the number line.



❷ For *John*, one step's distance is 60 cm. Measuring the platform length, he walks 5 steps. The length of the platform is how many centimeters? _____cm

❸ 0 3 8 , are digit cards. What is total the maximum 2-digit number and the minimum 2-digit number that you can arrange with the cards? _____

Fill in + or −

❹ 9 _____ 7 _____ 5 = 11

❺ 16 _____ 3 _____ 2 = 11

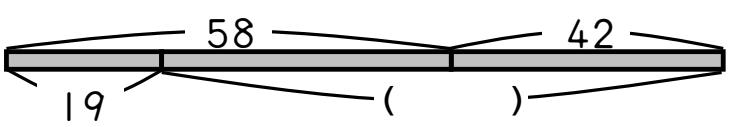
Part 3. Calculations (Each question 10 marks. Total 50 marks)

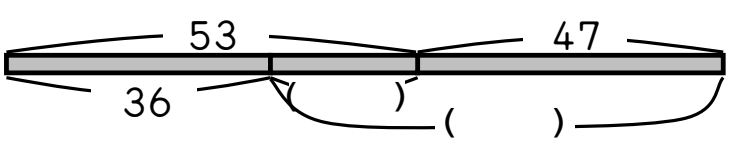
❶ 19 − 4 − 8 = _____

❷ 56 − _____ + 3 = 12

❸ _____ − 34 + 0 = 43

Fill the correct number in the ( )

❹ 

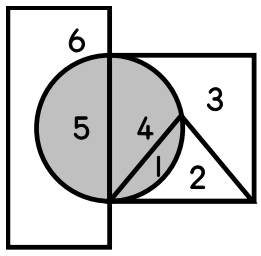
❺ 

Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

( )❶ There are how many days from 8th August to 19th August? (Including 8th August and 19th August)

( )❷ 10 pencils tied into 1 bundle. 77 pencils can be tied into a few bundles and a few pencils?

( )❸ Within the square and circle. But what are the numbers that are not within the triangle?



( )❹ 9 1 7 5 , are digit cards. What is different between the biggest 2-digit number and the smallest 2-digit number that you can arrange with the cards?

( )❺ 41 people are lined up in front of *Gill*. *Tina* is the 28th person behind her. *Tina* ranked what?

Student ID. _____ **Primary 2** Set 1

Time Allowed :15 minutes

Score / 600

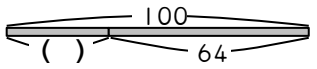
Part 1. Multiple Choice (Each question 10 marks. Total 100 marks)

(元 : dollars)

( )❶ What is the international common symbol of the "centimeter"? ① ***mm*** ② ***cm*** ③ ***m*** ④ ***km***.

( )❷ Which of the following includes a gray area that is $\frac{1}{2}$ of the △? ① ② ③ ④

( )❸ 5☝2 > 561, the covered number should be ① 5 ② 2 ③ 3 ④ larger than 6

( )❹ Can 

represent ( )+64=100? ① Yes ② No ③ not necessarily

( )❺ 85 (10元) can be replaced to a few [100元] at least? ① 10 ② 9 ③ 8 ④ 7 [100元].

( )❻ "919-250=669", Is this equation correct or not? ① Yes ② No ③ not necessarily

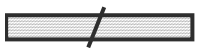
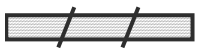
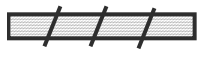
( )❼ Any number(≠0) multiplied by 0, the result is ① 1 ② 0 ③ any number ④ not necessarily

( )❽ How much is the difference between "4×8" and "8×5"? ① 5 ② 9 ③ 8 ④ 4

( )❾ Cube and cuboid. Which one the length of each side are the same?

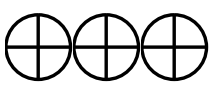
① Both are ② Neither of them ③ cuboid ④ cube

( )❿ Which of the following is divided equally into two parts?

①  ②  ③  ④ 

Part 2. Fill in the blanks (Each question 10 marks. Total 100 marks)

❶  has _____ angles and _____ sides.

❷  is how many times △? _____ times

❸ $\frac{7}{10}$ is how many times $\frac{1}{10}$? _____ times

❹ 2 weeks and 3 days is how many days?

_____ Days

❺ 5 quadrangles and 2 triangles have a total of _____ sides.

❻ 3 hundreds and 92 tens can be replaced by 8 hundreds and _____ tens.

❼ Each plane of the cube will be adjacent to _____ planes.

❽ Counting from 600, minus 60, the answer is _____, read as _____.

Fill in ＋, － or ×

❾ 8 _____ 8 _____ 8 = 56

❿ 8 _____ 8 _____ 8 = 8

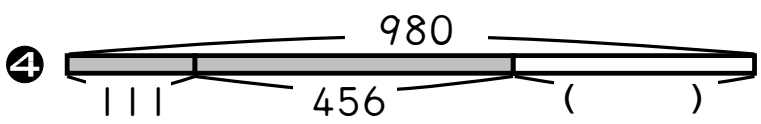
Part 3. Calculations (Each question 10 marks. Total 100 marks)

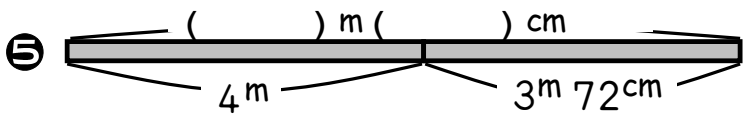
❶ [100元] [100元] [100元] (10元)(10元)(10元)(10元)(10元),

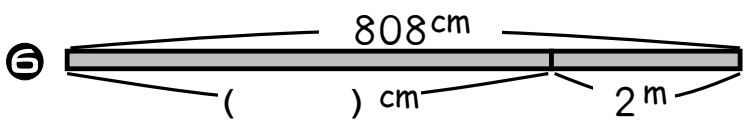
spent 220 dollars remaining _____ dollars.

❷ A×8=40, 40−A= _____

❸ 81−B=72, B×3 = _____

❹ 

❺ 

❻ 

❼
$$\begin{array}{r} 405 \\ +\ 176 \\ \hline \square \end{array}$$

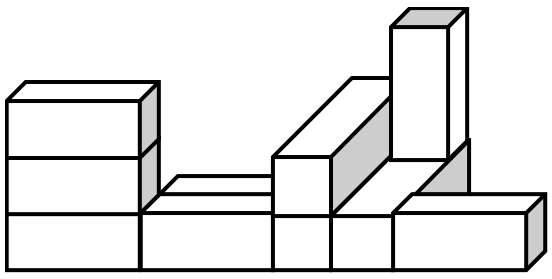
❽
$$\begin{array}{r} 608 \\ -\ \square \\ \hline 173 \end{array}$$

❾
$$\begin{array}{r} 9 \\ \times\ 4 \\ \hline \square \end{array}$$

❿
$$\begin{array}{r} 7 \\ \times\ \square \\ \hline 56 \end{array}$$

Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

( )❶ The following shape is composed by how many cuboids?



( )❷ *Martin* has 660 dollars. If he buy a 978 dollars remote control aircraft. How much is he not enough?

( )❸ 5 2 8 0 are digit cards. What is the minimum three digit numbers that you can arrange with the cards?

( )❹ Dad's wallet contains 7 100元, 14 10元, and 25 1元. In total, how many dollars does he have?

( )❺ Our class has 28 students. We were divided into some groups. Each group is 7 students. How many groups can we divide?

( )❻ The farm has 4 cows and 2 chickens. How many legs are there?

( )❼ 18 meters of wire. Divide equally into 3 parts. How many meters is each part?

( )❽ Class 2A queuing. 5 people are in a row. It can be arranged in five rows. How many people are in this class?

( )❾ Mom has a ribbon. $\frac{1}{3}$ ribbon to older sister. $\frac{1}{2}$ to younger sister. Whose ribbon is longer?

( )❿ Take 1 meter long ruler to measure the length of the fence. Measuring 9 times and 76 centimeters. How long is this fence?

Primary 2 Expert Level Math Challenge Questions

Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶ A regular triangle has 18 cm on each side. How long is the perimeter?
① 18 ② 6 ③ 36 ④ 54 cm

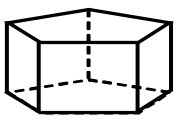
( )❷ How much is 5 kg shorter than 15 meters? ① 5 m ② 10 m ③ can not compare

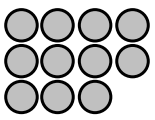
( )❸ Stack 64 small cubes into a large cube, how many layers are there?
① 8 ② 2 ③ 3 ④ 4 layers

( )❹ Which of the following is a 3-digit number which is larger than 439 but less than 888?
① 515 ② 422 ③ 375 ④ 890

( )❺ 369 − □ −154=15, □ = ① 187 ② 200 ③ 301 ④ 240

Part 2. Fill in the blanks (Each question 10 marks. Total 50 marks)

❶  has _____ surfaces and _____ vertices.

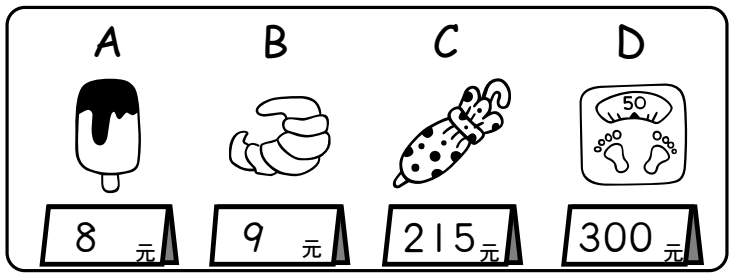
❷ ○○ is _____ of  .(fill in fraction)

❸ 780 − 390 − 270 − 510 = 0 , which is the extra number in the this equation? _____

❹ A = 94 × 0 ， B = 1 × 8 ， A and B who is larger? _____

❺ There is a 3-digit number. If the unit place digit is same as hundredth place digit. And the tenth place digit is 0. This maximum number is _____.(smaller than 600)

Part 3. Calculations (Each question 10 marks. Total 50 marks)



❶ Bought 2A and 3B, you should to pay _____ dollars.

❷ D is _____ dollars more expensive than C.

❸ Is 500 元 enough to buy C and D? _____

❹ Is 10元 10元 enough to buy A and B? _____

❺ Buy 50A and buy D, what is the difference between the two amounts? _____ dollars

Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

( )❶ A triangular prism a few surfaces?

( )❷ What is the difference between 8 times of the minimum 2-digit number and maximum 2-digit number?

( )❸ A has 6 dollars. B is 2 times that of A. C is 3 times that of B. How many dollars are there for 3 people?

( )❹ Take a 30 cm ruler to measure the height of the door. Measured 7 times. What is the door height?

( )❺ A bag of marbles equally to five children. Each child takes 8. But 3 marbles left. This bag has a few marbles?

Student ID. _____ **Primary 3** Set 1 Time Allowed :15 minutes

Score / 600

Part 1. Multiple Choice *(Each question 10 marks. Total 100 marks)*

(元 : dollars)

( )❶ The circumference of the equilateral triangle is how many times the length of the side?
① 1 times ② 2 times ③ 3 times ④ 4 times

( )❷ Which one weighs less than 1 kg? ① television ② refrigerator ③ bicycle ④ Cell phone

( )❸ On the clock face. The second-hand move 5 small intervals. Is how much time?
① 1 second ② 5 seconds ③ 12 seconds ④ 5 minutes

( )❹ 7 in "56.7" is ① Tens place ② Ones place ③ Tenths place ④ Hundredths place

( )❺ 998 – 299 = □, □ is closest to ① 700 ② 600 ③ 500 ④ 400

( )❻ A=0×147, B=258×0, A and B which one is larger? ① A ② B ③ Same ④Can not compare

( )❼ 369 ÷ 3 = □, □ = ① 123 ② 372 ③ 366 ④ 133

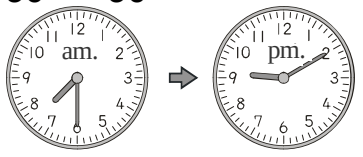
( )❽ The tally 『𝍸 𝍸 𝍸 ||』 represents the number ① 12 ② 22 ③ 32 ④ 17

( )❾ There are two numbers, A and B. A is $\frac{7}{10}$, and A+B= $\frac{12}{10}$. What number is difference between the two numbers? ① $\frac{1}{10}$ ② $\frac{2}{10}$ ③ $\frac{7}{10}$ ④ $\frac{5}{10}$

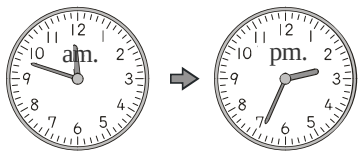
( )❿ When cubes of the same size are stacked, and if the volume is bigger, the number of cubes used be ① more ② less ③ not necessarily ④ cannot count

Part 2. Fill in the blanks *(Each question 10 marks. Total 100 marks)*

❶ $\frac{49}{50}$ ➡ $\frac{44}{50}$ ➡ _____ ➡ $\frac{34}{50}$ ➡ $\frac{29}{50}$

❷ 

It is passed
_____ hours
_____ minutes

❸ 

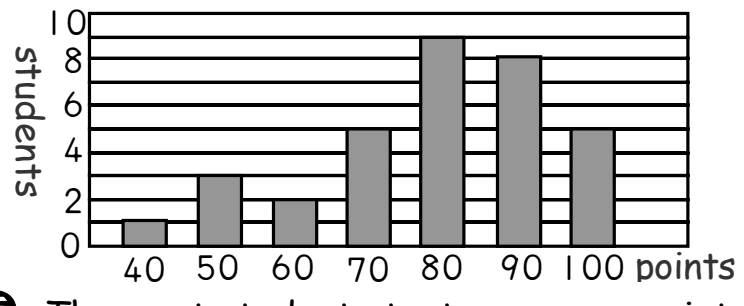
It is passed
_____ hours
_____ minutes

Fill in the blank (use > or < or=, □ is any number)

❹ 59□3 _____ 60□4

❺ 79□+102 _____ 498+3□3

The whole class mathematics exam grade record



❻ The most students test _____ points, there are _____ students.

❼ Score less than 60 points have _____ students.

❽ The score is 100 points have _____ students.

❾ The number of students with _____ points and _____ points is the same.

❿ There are a total of _____ students.

Part 3. Calculations *(Each question 10 marks. Total 100 marks)*

❶ 12 cm + 34 mm = _____cm _____mm

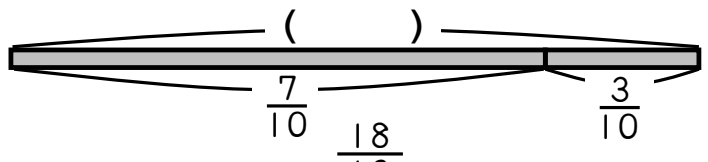
❷ 147 + 258 = _____

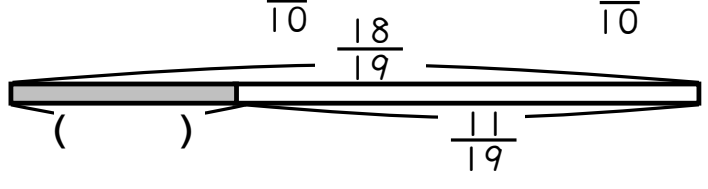
❸ 8.7 – 5.6 = _____

❹ 90 × 90 = _____

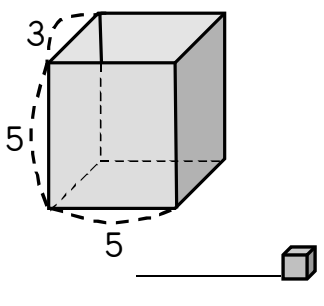
❺ 231 ÷ _____ = 3 × 7

❻ $\frac{19}{20}$ – _____ = $\frac{7}{20}$ + $\frac{3}{20}$

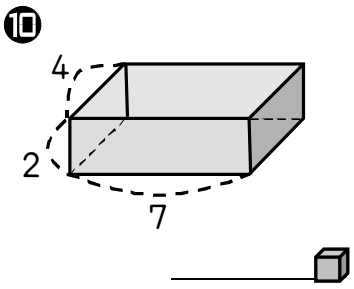
❼ 

❽ 

The empty box is not covered. ▢ is 1 cubic centimeter. How many ▢ is made fill up the empty box? (Units: cm)

❾ 

_____

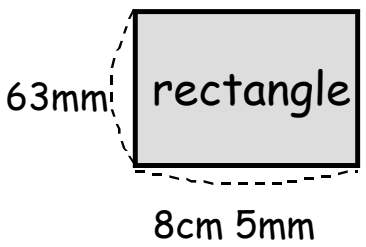
❿ 

_____

Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

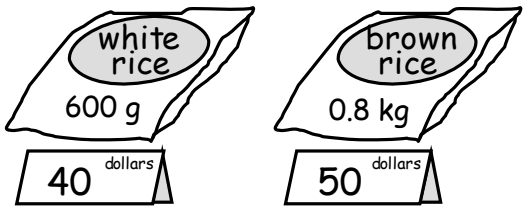
( )❶ A bag of rice weighs 1.2 kilograms. 3 bags of rice is how many kilograms?

( )❷ Find the perimeter of the following figure.



( )❸ One taxi can carry 4 passengers, how many taxis will be needed to carry 31 passengers?

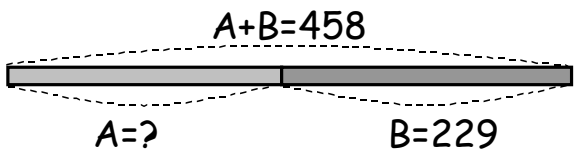
( )❹ If white rice and brown rice each buy 400 dollars. Which kind of weight will be heavier?



( )❺ The distance sign of the expressway sets up one for every 100 meters. *Stephen* counts it from number 1st to 51st. How many distances has he passed?

( )❻ $\frac{13}{16}$ must add a minimum of what fraction to become an integer?

( )❼ The sum of the two numbers of A and B is 458. The number B is 229. What is the number A?



( )❽ There is a number. Tens place is 7, Ones place is 0 and Tenth place is 7. How much is this numbers plus 7?

( )❾ Math test. Amy finished with 14 minutes and 25 seconds. Tiffany finished with 850 seconds. Who calculation faster?

( )❿ A big cube can be stacked with 64  . Another big cuboid can be stacked with 60  . What is the total volume of the two? (1  is 1 cubic cm)

Primary 3 Expert Level Math Challenge Questions

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

( )❶ "$\frac{9}{10}$" may be referred to as ① 9.10 ② 10.9 ③ 0.9 ④ 9

( )❷ How heavy is the water of 1 liters? ① 1 g ② 10 g ③ 100 g ④ 1000 g

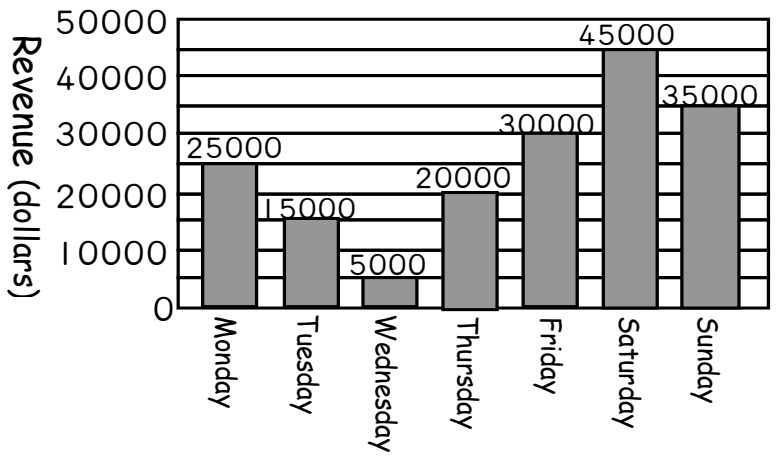
( )❸ A × B=408, B is 12, A−B = ① 21 ② 22 ③ 23 ④ 24

( )❹ Dividend and Divisor are divided by same numbers(≠0) at the same time. The quotient will be ① unchanged ② increase ③ decrease ④ not necessarily.

( )❺ The 5 apples are 1.25 kg. The 4 bananas are 480 g. One apple and one banana differ by ① 770 g ② 125 g ③ 130 g ④ Can not compare

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

Convenience store a week revenue bar chart



❶ The highest revenue is _____.

❷ The lowest revenue is on _____.

❸ The difference between the highest and lowest revenue is _____ dollars.

❹ This week total revenue is _____ dollars.

❺ If costs account for half of revenue. Altogether net earned _____ dollars.

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*

❶ $\frac{50}{99} \rightarrow \frac{55}{99} \rightarrow \frac{60}{99} \rightarrow$ _____ $\rightarrow \frac{70}{99}$

❷ _____ + 2.1 = 9.8 − 7.6

❸ _____ $- \frac{3}{11} - \frac{4}{11} = \frac{2}{11}$

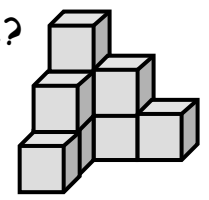
Calculate according to the direction of the arrow.

❹ ○ ×12 □ ÷13 24

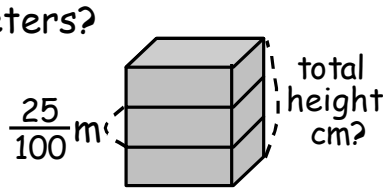
❺ ○ ÷5 □ ÷6 78

四、應用題(每題 10 分，共 50 分)

( )❶ The following figure's volume is 81 cm^3. How much volume does one ▢ have?



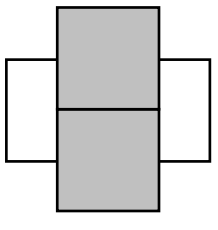
( )❷ A box has a height of $\frac{25}{100}$ meters. 3 stacked together. A total height of a few centimeters?



( )❸ The sum of three numbers A, B, and C is 1962. As known C is 987, and larger than A by 666. Find B?

( )❹ There are three numbers A, B, and C. A is 5.1, A is 3 times of B, C is 8 times of B. What is the sum of the three numbers?

( )❺ Four squares are arranged overlapping as shown, each square area is 121 cm^2. Find the entire area of the figure.



Student ID. _____

Primary 4

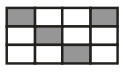
Set 1

Time Allowed :15 minutes

Score / 600

Part 1. Multiple Choice (Each question 10 marks. Total 100 marks)

(元 : dollars)

( )❶ Which of the gray parts is as large as  ? ①  ②  ③  ④ 

( )❷ The right triangle has the maximum number of right angle? ① 1 ② 2 ③ 3 ④not necessarily

( )❸ Which one is the area unit? ①cm ②cm/sec ③ square centimeters ④ cubic centimeters

( )❹ Between 8:00 am. to 12:00 am, how many time has passed? ① 1 ② 2 ③ 3 ④ 4 hours

( )❺ Take the approximate number to ten thousand digit, the estimate should be which nearest placing? ①ten thousands digit ②thousands digit ③hundreds digit ④tens digit

( )❻ To find a multiple of a certain number, what is the best way to calculate?
① addition ② subtraction ③ multiplication ④ division

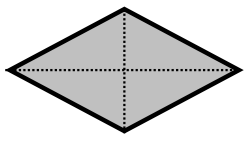
( )❼ $a \times 8 = 400$, then a = ① 50 ② 500 ③ 392 ④ 40

( )❽ In the Broken-line graph, the lower the line height, the value represented is
① more ② less ③ fixed ④ not necessarily

( )❾ What is the smallest number on the right? ① $8\frac{18}{100}$ ② $8\frac{8}{10}$ ③ 8.88 ④ 8.08

( )❿ A number($\neq 0$) is divided by 1000, what is the quotient of this number?
① $\frac{1}{1000}$ ② $\frac{1}{100}$ ③ 100 times ④ 1000 times

Part 2. Fill in the blanks



❶ To cut a rhombus shape along two diagonal, How many right angle triangles are there? _____ right angle

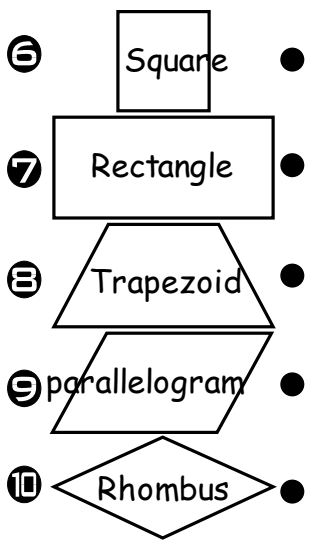
❷ Angle sum of the quadrilateral is how many times angle sum of the triangle? _____ times

❸ $\frac{1}{A} > \frac{1}{B} > \frac{1}{C}$, A, B, C are three numbers, the smallest is _____.

❹ It takes about two _____ to say a word. (fill in the time unit)(days, hours, minutes or seconds)

❺ A divided by B, the quotient is 45. If A is increased 3 times, B is reduced by 3 times, the quotient becomes _____.

Match the shape with their correct definitions



- 4 right angles
- 4 sides equal length
- 4 sides equal length, and 4 right angles
- 2 pairs of opposite sides are parallel
- Only 1 pairs of opposite sides are parallel

Part 3. Calculations (Each question 10 marks. Total 100 marks)

❶ 5 trillion 500 billion − 3 trillion 900 billion
= _____trillion _____billion

❷ 1 hours 23 seconds − 3 minutes 45 seconds
= _____minutes _____seconds

❸ $5\frac{11}{17} + $ _____ $= 6\frac{19}{34}$

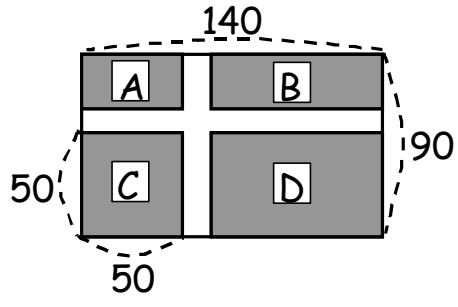
❹ $9876 \div 12 =$ _____

❺ $54.32 \times 0.25 =$ _____

❻ $123 + 456 \div (7+8+9) =$ _____

❼ $(12+a) \div 6 + 789 = 848.5$, $a =$ _____

The piece of rectangular land. There is a crossroad with a 10 m width in the middle (Unit:m)



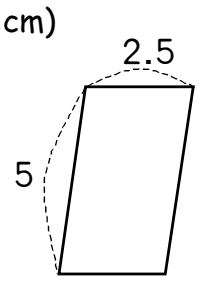
❽ The perimeter of the D zone is _____ m.

❾ The area of B zone is _____ m^2.

❿ The total road area is _____ m^2.

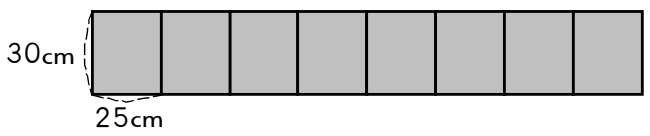
Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

( )❶ Find the perimeter of the parallelogram? (Unit:cm)



( )❷ 24 hours a day, 1 hour 60 minutes , 1 minute 60 seconds, how many seconds a day?

( )❸ A rectangle of paper is 30 cm long and 25 cm wide. There are 8 pieces of the same paper. How many square centimeters are the total area?



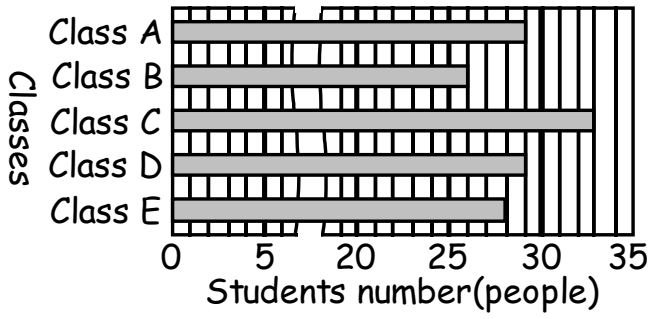
( )❹ *Mary*'s home water supply is going to be cut off from 11:30 pm to 6:30 am. How many hours were without water?

( )❺ Children's Park had 27918 visitors in January. There were 35461 visitors in February. There were 11682 visitors in March. What is the total number of visitors this season? (Find the approximate number in the thousands place)

( )❻ A number is subtracted by $\frac{1}{2}$ and then subtracted $\frac{1}{3}$. The result is $\frac{1}{4}$. Find this number?

( )❼ The drink store has a total revenue of X dollars today. A total of 64 cups drinks were sold. A cup sells 35 dollars. How much is X?

( )❽ The following figure is a bar chart. Which Class have the lowest people? How many people in this Class?



( )❾ *Mary*'s home water supply is going to be cut off. Mom is preparing 330 liters of water to store. and divided equally it into 4 large buckets. How many liters of water per large bucket?

( )❿ A car is travel 36.5 kilometers per hour, B car travels 41.7 kilometers per hour, both leaving at the same time, the same location and the same direction, 2 hours later, how many km apart are the two cars?

Primary 4 Expert Level Math Challenge Questions

Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶ If the perimeter of the shapes are equal, which shape has the biggest area?
① All the same ② Circle ③ Square ④ Any quadrilateral

( )❷ Minuend ÷ (subtrahend + difference) = ① 1 ② minuend ③ subtrahend ④ can't divided.

( )❸ 8864 ÷ 64, quotient is 138, then remainder is ① 10 ② 23 ③ 32 ④ 0

( )❹ X ÷ X + X = 50 (X ≠ 0), Then X = ① 10 ② 23 ③ 50 ④ 49

( )❺ In winter, if the length of daytime is 11 hours 35 minutes, what is the length of night-time.
① 12 hours 25 minutes ② 12 hours ③ 13 hours 25 minutes ④ 11 hours 35 minutes

Part 2. Fill in the blanks

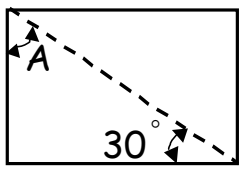
❶ Turn the second hand 15 laps to equal _____ : _____.

❷ 5 times for A and 8 times for A are 221 in total. Then A = _____

❸ The denominator is the fraction of 15. The fraction greater than $\frac{1}{5}$ and smaller than $\frac{1}{3}$ is _____. (Without $\frac{1}{3}$ and $\frac{1}{5}$)

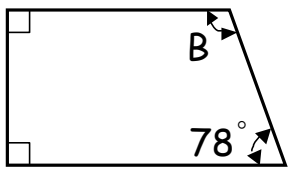
Find the degree of each angle.

❹ Rectangle



∠A = _____ °

❺ Trapezoid



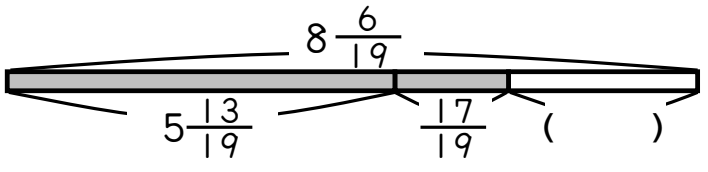
∠B = _____ °

Part 3. Calculations (Each question 10 marks. Total 50 marks)

❶ 0.12 × 34 + 0.12 × 66 = _____

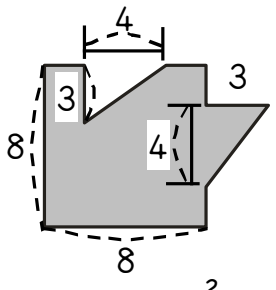
❷ (777+888) ÷ 78 = _____ … _____

❸



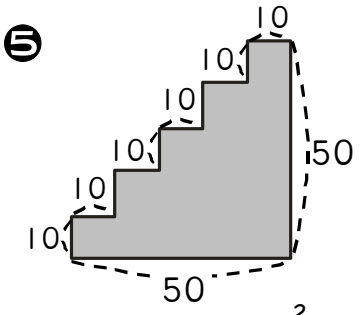
Find areas of the following figures (Unit:cm)

❹



_____ cm^2

❺



_____ cm^2

Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

( )❶ Earth orbits at 1,800 kilometers a minute around the Sun, how many kilometers can Earth travel in half an hour?

( )❷ There is a fraction, the denominator is larger than the numerator 7, 7 times the numerator is 77, what is this fraction?

( )❸ There are two numbers A and B. As known that A is greater than B. And A×B=14641. A ÷ B=121. Find A−B=?

( )❹ Gasoline is 2.94 dollars per liter. Dad's car can drive about 23.5 kilometers per liter. If he refuels 102.9 dollars. How many kilometers can he drive?

( )❺ A freight company is shipping 1000 cups, freight charges for each cup are 6 dollars, compensation for each broken cup is 100 dollars and with no freight charges. If the final freight charged is 4622 dollars, how many cups were broken?

Student ID. _____ **Primary 5** Set 1 Time Allowed :15 minutes

Score / 600

Part 1. Multiple Choice *(Each question 10 marks. Total 100 marks)*

(元 : dollars)

( )❶ "%" is a symbol of percentage, which means that ① 1 ② 100 ③ $\frac{1}{10}$ ④ $\frac{1}{100}$

( )❷ The international symbol of the "hectare" is ① a ② ha ③ m^2 ④ km^2

( )❸ The trapezoid's two diagonal lines will be
① vertical ② parallel ③ not necessarily the same length ④ must be the same length

( )❹ The area of the triangle is
① base×height÷2 ② (base+height)÷2 ③ base×height÷3 ④ base×height

( )❺ How many are the undersurface of the cone? ① 1 ② 2 ③ 3 ④ not necessarily

( )❻ The same time, The distance is relatively long, is running
① slower ② faster ③ as fast ④ can not compare

( )❼ The multiplier is less than 1, the product will be ① is equal to the multiplicand
② is greater than the multiplicand ③ is lesser than the multiplicand ④ not necessarily

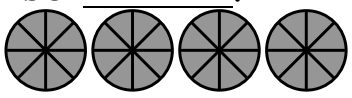
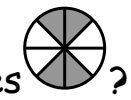
( )❽ $20 \times a < 500$, a should be between ① up 25 ② 0~20 ③ 0~23 ④ 0~24

( )❾ *Billy*'s subjects of final exam results, suitable to drawing with what kind of chart?
① Bar chart ② Line chart ③ Both can be

( )❿ $12 + a = 34$, $a =$ ① 34+12 ② 34−12 ③ 34×12 ④ 34÷12

Part 2. Fill in the blanks *(Each question 10 marks. Total 100 marks)*

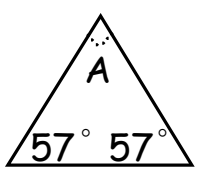
❶ $99 - a < 50$, the minimum value of a should be _____.

❷  is how many times  ?
_____ Times. (gray part)

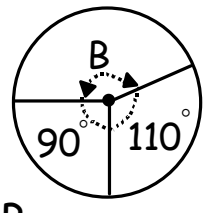
❸ $660 \times 87 \div 6 =$ _____ $\times 87$

❹ Eight equal parts of a perigon. Each central angle is _____ degrees.

Find the degree of each angle.

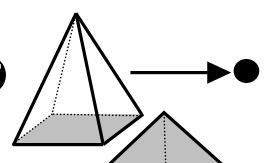
❺ 

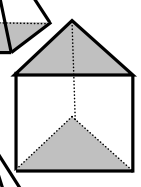
$\angle A =$ _____ °

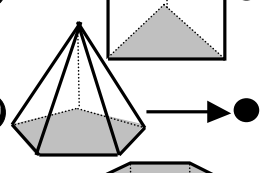
❻ 

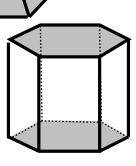
$\angle B =$ _____ °

Match The shaped perspective view and The name

❼ 

❽ 

❾ 

❿ 

- Hexagonal prism
- Pentagonal pyramid
- Quadrangle pyramid
- Triangular prism

Part 3. Calculations *(Each question 10 marks. Total 100 marks)*

❶ 1.23tonnes − $45\frac{67}{100}$ kg= _____kg

❷ $8\frac{9}{10}$ minutes+1.05minutes= _____seconds

❸ $1\frac{5}{6}$ days−7hours 30minutes
= _____ hours _____ minutes

❹ $12\frac{4}{7} \times 5 =$ _____

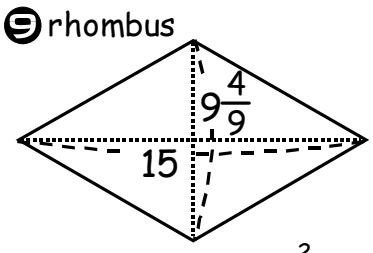
❺ $65 \times 4.321 =$ _____

❻ $6.914 \div 53 =$ _____ (Round it off to find the answer for the second decimal place)

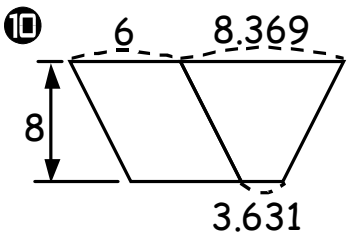
❼ $87.654 \div \frac{3}{4} =$ _____

❽ $a \div 24 = 68$, $a =$ _____

Find the area of each figure (Unit:cm)

❾ rhombus


_____ cm^2

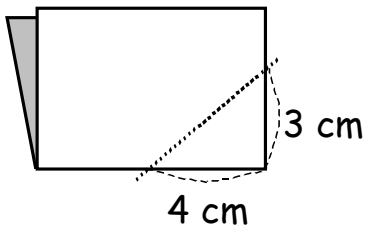
❿ 

_____ cm^2

Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

( )❶ If $\frac{A}{7} \times \frac{B}{7} = 1$, then A×B= ?

( )❷ After folding a piece of paper. Cut along the dotted line. Find the triangle area after expansion?

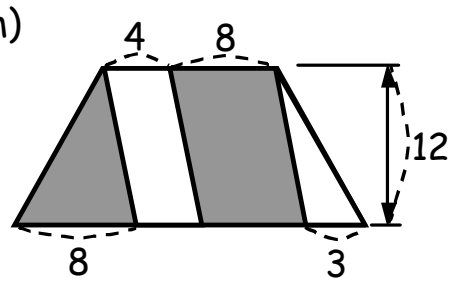


( )❸ *John* goes online for 14 hours 56 minutes per week, how much time on average does he spend online every day?

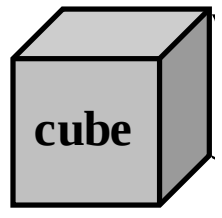
( )❹ The bank deposit rate is 1.68% per annum. Dad deposit 500,000 dollars. How much interest can he get after one year expires?

( )❺ A truck can load 1.5 tonnes of cabbage which can sell for 24 dollars per 0.6 kg. What is the selling price of one truck of cabbage?

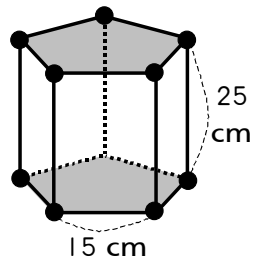
( )❻ As shown. There is a trapezoidal. Find the area of the gray part? (Unit:m)



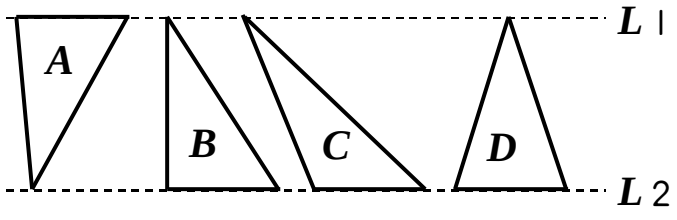
( )❼ Side length of the cube is 13.579 cm, What is the sum of all its side lengths?



( )❽ Strips of wood are made into a regular pentagonal prism-shaped lanterns. How many centimeters of wood are used?



( )❾ L1 is parallel to L2. The areas of the triangles A, B, C, and D are all the same. Which triangle's base is the longest?



( )❿ Dad bought 3 apples and 8 oranges. A total of 420 dollars was paid. One orange is sold for 15 dollars. How many dollars does one apple sell?

Primary 5 Expert Level Math Challenge Questions

Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶ Which polyhedron has triangles as each plane surface?
① Triangular pyramid ② Hexagonal pyramid ③ Triangular prism ④ Quadrangle pyramid

( )❷ 1 divided by any fraction the results is
① 1 ② the reciprocal of any fraction ③ any fraction ④ improper fraction

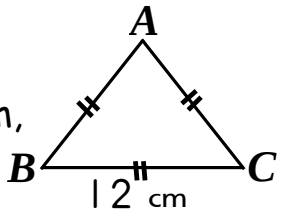
( )❸ The ratio of "ppm" refers to
① one-ten thousandth ② one hundred-thousandth ③ one millionth ④ one thousandth

( )❹ The central angles of $\frac{1}{4}$ of a circle and $\frac{1}{8}$ of a circle has the difference of
① 15 ② 25 ③ 36 ④ 45 degrees

( )❺ The sunrise and sunset are the same time from 12 noon. The sunrise is 5 o'clock 55 minutes. The sunset should be
① 6 o'clock 5 minutes ② 5 o'clock 5 minutes ③ 6 o'clock 55 minutes ④ 5 o'clock 55 minutes

Part 2. Fill in the blanks

❶ Side AB length is _____ cm, angle B is _____ degrees.



❷ $0.987 \div \frac{B}{A} = C$, as known $C < 0.987$, then A and B, which is larger? _____

Farm fruit weight record

Fruit	orange	cantaloupe	watermelon	apple
weight (kg/each)	0.235	0.981	1.88	?

❸ The weight of 1 watermelon is the weight of _____ oranges.

❹ The weight of 1 cantaloupe is the weight of 3 apples. 1 apple weighs _____ kg.

❺ A watermelon is _____ kg heavier than an apple.

Part 3. Calculations (Each question 10 marks. Total 50 marks)

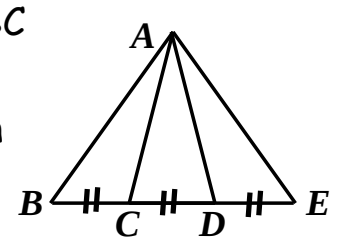
❶ _____ ÷ 12 = 34.56…7.89

❷ 14 + x = 3 × (x−2), x = _____

❸ 26 minutes ÷ (1 minute 5 seconds×4) = _____

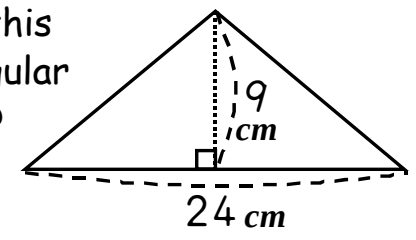
❹ $\frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \cdots + \frac{1}{2048} =$ _____

❺ The area of triangle ABC is 56 cm^2. if side BC = side CD = side DE. Then the area of triangle ABE is _____ cm^2.

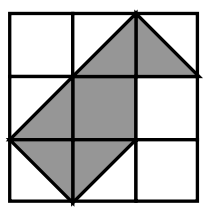


Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

( )❶ The following figure is the side surface of the quadrangular pyramid. What is the surface area of this quadrangular pyramid?



( )❷ As shown. The grey part area is $\frac{14}{25}$ cm^2. Find the whole area?



( )❸ The pool is filled with water from two sizes of water pipes, small water pipe 15 liters per minute, large water pipe 55 liters per minute, after 1.5 hours what is the pool's capacity in kiloliters?

( )❹ There are two positive integers A and B. A = B − 15, and A × B = 250, Find A + B = ?

( )❺ Observed from the table. As the height increases. Is the temperature decreased? Or increased?

Statistics of temperature change with mountain height

mountain height(m)	0	500	1000	1500	2000	2500
temperature (°)	30.0	27.1	23.9	20.8	18.2	14.7

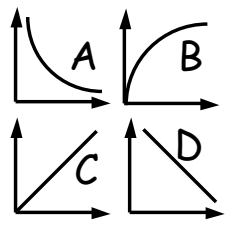
Student ID. _____ **Primary 6** Set 1

Time Allowed :15 minutes

Score / 600

Part 1. Multiple Choice (Each question 10 marks. Total 100 marks)

(π = 3.14) (元 : dollars)



( )❶ As shown, the inverse proportion relationship is ① A ② B ③ C ④ D

( )❷ (A, B) and (B, A) are represented positions by ① the same ② not the same ③ sometimes the same ④ sometimes not the same

( )❸ The area of the base of the right circular cylinder remains unchanged. The height becomes 2 times. The volume will become ① 1 ② 2 ③ 3 ④ 4 times

( )❹ How many intervals are there, between the 40th power pole to the 80th? ① 41 intervals ② 42 intervals ③ 39 intervals ④ 40 intervals

( )❺ 15 consecutive odd numbers, their average is just equal to the ① 1st number ② 7th number ③ 8th number ④ 15th number

( )❻ The same distance. If the running time is shorter. The speed will be ① faster ② slower ③ the same ④ can not compare

( )❼ After rolling a dice is how many positive odd outcomes? ① 1 ② 2 ③ 3 ④ 6 outcomes

( )❽ $(A+B)\div C=$ ① $A+\frac{B}{C}$ ② $\frac{A}{C}+\frac{B}{C}$ ③ $\frac{A}{B}+\frac{B}{C}$ ④ $\frac{A}{C}\div\frac{B}{C}$

( )❾ $a\div 3\times 24=58$, $a=$ ① $6\frac{3}{4}$ ② $7\frac{1}{2}$ ③ $7\frac{1}{3}$ ④ $7\frac{1}{4}$

( )❿ As known large numbers + small numbers = sum. Large numbers − small numbers = difference. So large numbers = ① (sum−difference)÷2 ② (sum−difference)×2 ③ (sum+difference)÷2 ④ (sum+difference)×2

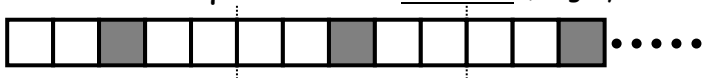
Part 2. Fill in the blanks (Each question 10 marks. Total 100 marks)

❶ The shape of the base of the rhombus prism is a _____.

❷ Speed 5.4 km per hour=_____m per second

❸ 82,41,56,37, Median = _____

❹ The 101st squares are _____.(fill gray or white)



❺ 9 , 16, 23, 30, 37, ... , According to the rule, the 50th number is _____

❻ 25 ,64 ,59 ,25 ,39 ,54 ,25 ,42 , Mode = _____

Martin record throw of a dice 100 times

pips	1	2	3	4	5	6
no. of occurrences	17	15	18	15	19	16
probability	$\frac{17}{100}$	~	~	~	~	~

❼ The probability of 3 pips is _____.

❽ The probability that the number of pips is less than or equal to 2 is _____%.

❾ The probability that the number of pips is more than or equal to 4 is _____%.

❿ The probability of 7 pips is _____.

Part 3. Calculations (Each question 10 marks. Total 100 marks)

❶ x's $1\frac{2}{3}$ times is $5\frac{3}{4}$, x is _____.

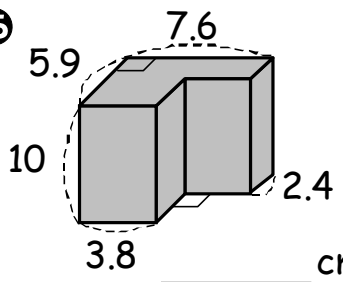
❷ $7.4\times 2.5\div 3.7\div 0.5=$ _____

❸ $9\frac{5}{6}\div 3\frac{1}{4}-2\frac{2}{3}\times\frac{7}{8}=$ _____

❹ $a-\frac{2}{9}+3\frac{1}{4}=5\frac{7}{9}$, $a=$ _____

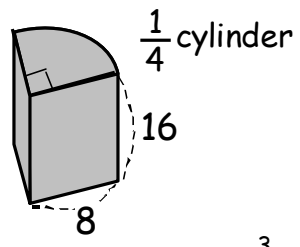
Find the volume of each figure (Unit:cm)

❺



_____ cm^3

❻



_____ cm^3

Mom and *Mary* Age Relationship Table

Mom (years old)	24	25	26	27	…	48	~	50
Mary (years old)	0	1	2	~	…	24	25	26

❼ Mom and *Mary* age difference of _____ years old.

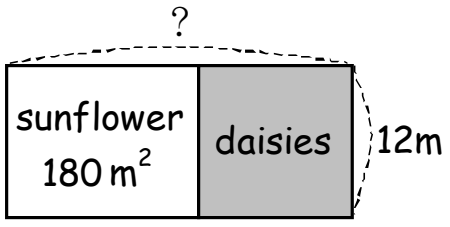
❽ After 30 years, the age difference between the two will be _____ years old.

❾ When Mom is _____ years old. Mom's age is three times as *Mary*'s.

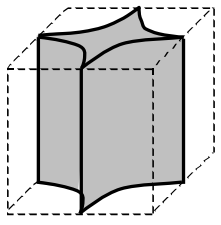
❿ When Mom's age is 4 times as *Mary*'s. *Mary* is _____ years old.

Part 4. Applied questions *(Each question 10 marks. Total 100 marks)*

( )❶ Dad planted daisies in a square garden. planted sunflower in a rectangular garden. What is the total perimeter of the garden?



( )❷ A cube of side length 20 cm block. Cut $\frac{1}{4}$ circle on each side. As shown. Find this shape volume?



( )❸ There are three numbers A, B and C, the average of the three numbers is x, then A plus 18, B plus 12 and C minus 6 to take a new average, how much is this new average more than the original average?

( )❹ A, B and C are working together to complete a work. A completes $\frac{3}{8}$ of the work. The remaining work is split equally and completed by B and C. The workload of A is how much times greater than C's?

( )❺ Chocolate and vanilla ice cream per box are 90 dollars and 80 dollars. Dad bought a total of 6 boxes. He paid 500 dollars. Did he buy how many numbers of boxes of chocolate ice cream?

( )❻ *David* has to do four sets of "four-choose-one" multiple choice questions. He found that all unable to do. What is the probability of David guessing all wrongly?

( )❼ There are three coordinates A(3,8), B(4,7), and C(5,6). Which is closest to the coordinates (9,9)?

( )❽ There are 870 students in the primary school, and 50 more boys than girls. How many boys are there?

( )❾ The speed of 100 km of a car. After driving three hours to reach the destination. If you want to arrive half an hour earlier. How many kilometers do you need to increase in speed?

( )❿ A hydrostatically moving boat's speed is 25 km/h. The river flows at 5 km/h. If the boat sails upstream, from place A to place B with 3 hours, what is the distance between the two places?

Primary 6 Expert Level Math Challenge Questions

Part 1. Multiple Choice (Each question 10 marks. Total 50 marks)

( )❶ The rightmost coordinate is ① (1, 8) ② (2, 7) ③ (3, 6) ④ (4, 5)

( )❷ There are large and small two numbers. Half of the sum is 76. The difference of 3 times is 66. The small number is ① 65 ② 62 ③ 32 ④ 55

( )❸ 2,4,6,8,10,…,46,48,104, How many numbers in this sequence? ① 51 ② 52 ③ 53 ④ 54

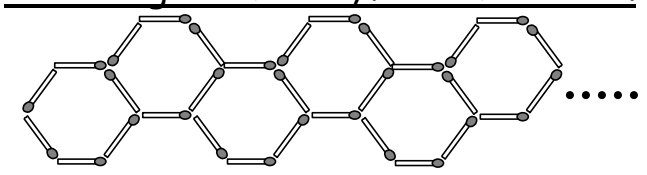
( )❹ A ran 89 meters. B ran 98 meters. Who is faster? ①A ②B ③as fast ④can not compare numbers

( )❺ Distance is fixed, If speed decreases 60%, Time will increase
① 37.5% ② 60% ③ 150% ④ unchanged.

Part 2. Fill in the blanks (Each question 10 marks. Total 50 marks)

❶ Number A and the number B are inversely proportional. When A becomes $5\frac{1}{7}$ times. Then B becomes _____ times.

According to the rule, Find the answer.



❷ Arranging 50 regular hexagons need the use of _____ matches.

❸ 500 matches can be arranged to _____ regular hexagons.

Steve walks 50-step distance record

items	1	2	3	4
distance(m)	35.1	34.7	34.9	35.3

❹ Steve's average step is _____ cm.

❺ Taking 80 average steps, the distance is _____ m.

Part 3. Calculations (Each question 10 marks. Total 50 marks)

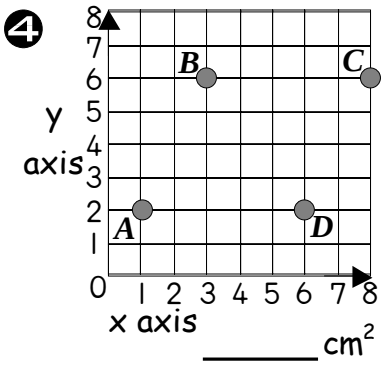
❶ $\frac{7}{10} \div 1\frac{2}{3} \times \frac{5}{14} \div 3 \times 1\frac{5}{7} =$ _____

❷ $\frac{1}{2} \div \frac{2}{3} + \frac{3}{4} \times 1\frac{1}{3} - 2 \times (\frac{1}{5} + 0.2) =$ _____

❸ $x \div 2 + \frac{1}{4} = 4$, $x =$ _____

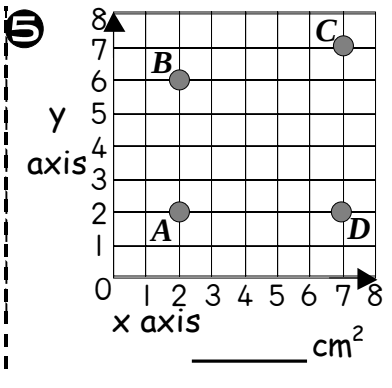
If each point was connected.
Find the graphics area. (1 cm per grid)

❹



_____ cm^2

❺



_____ cm^2

Part 4. Applied Questions (Each question 10 marks. Total 50 marks)

( )❶ There is a rhombus. The major axis is 24 cm. 6 cm more than the minor axis. Find the perimeter?

( )❷ *John* throws two dice. What is the probability that the total number of pips is a composite number?

( )❸ There are a total of 20 cars and tricycles, if there is a total of 76 wheels, how many tricycles are there?

( )❹ There is a trapezoid. The topline is half of the baseline. The height is 10 cm. The area is 120 square centimeters. Find the topline?

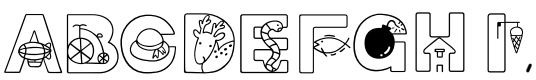
( )❺ The highway has a mileage sign every 100 meters. Alice counted 51 mileage sign in 3 minutes. Find the car speed?

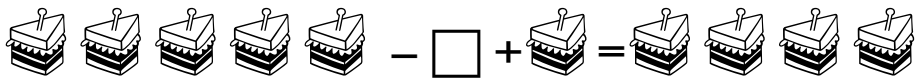
Student ID. _____	*Kindergarten (K2)* Set 2 Time Allowed : 3 minutes	Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元：dollars)

( )❶  = (1)  (2)  (3)  。

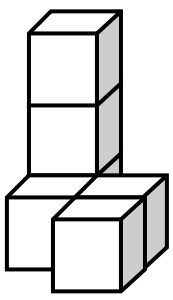
( )❷  , What number is  from the left side? (1) 6 (2) 7 (3) 8

( )❸  , □ = (1) 7 (2) 2 (3) 3

( )❹  , □ = (1) 7 (2) 4 (3) 3

( )❺ There are  , came in, and  came in, how many cats are there? ①4 ②2 ③0 cats.

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

❶ 

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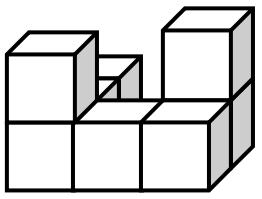
❷ 

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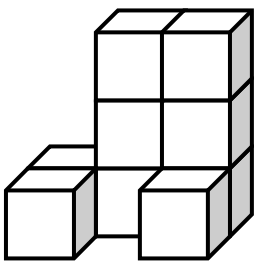
❸ 

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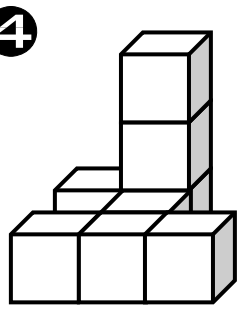
❹ 

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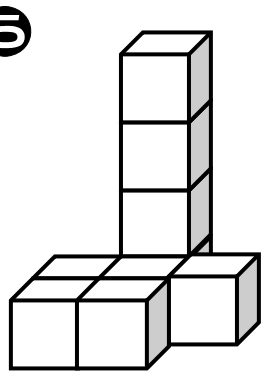
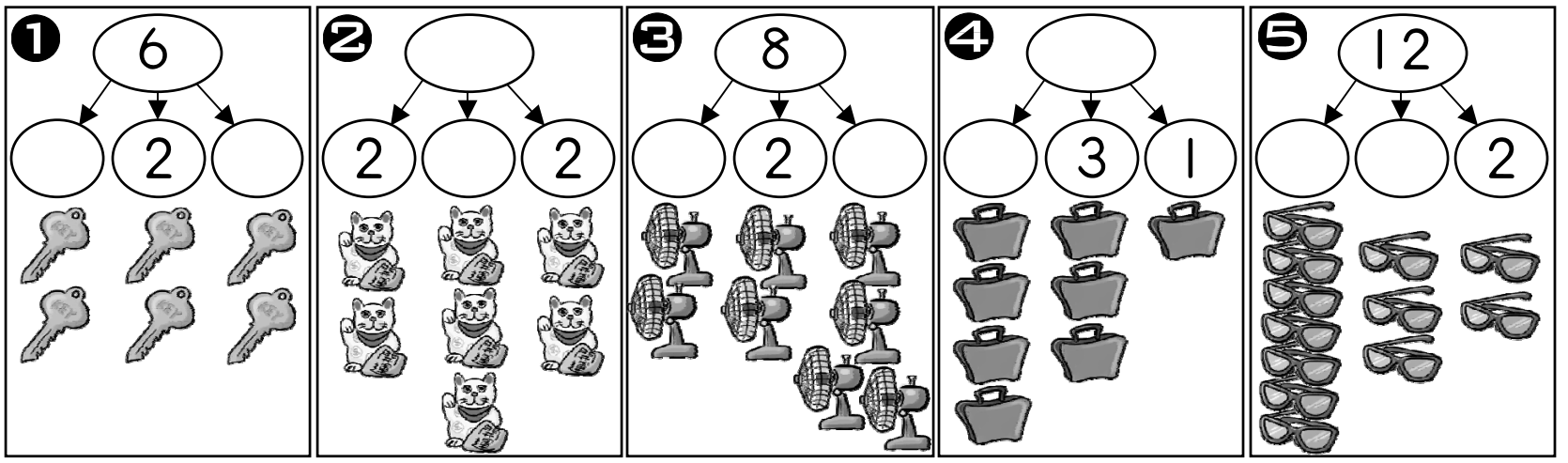
❺ 

( )

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*



Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

❶ There are 9  and 11  , how many beetles are there in all? _____ beetles

❷ There are 8  and 13  , what is the difference between  and  ? _____ cicadas

❸ There are 10  and 7  , how many  are more than  ? _____ shells

❹ There are  , how many legs in total? _____ legs

❺ There are  , how many legs in total? _____ legs

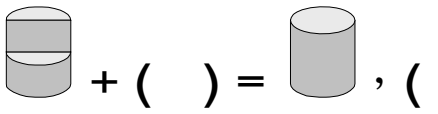
Student ID. _____ *Kindergarten (K3)* Set 2

Time Allowed : 3 minutes

Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元：dollars)

( )❶  , ( )= (1)  (2)  (3)  (4) 

( )❷  = (1) 47 (2) 42 (3) 52 (4) 57 dollars.

( )❸ 22 → 20 → □ → 16，□ = (1) 19 (2) 18 (3) 17 (4) 15

( )❹ 12 – 11 □ 8 = 9，□ = (1) + (2) – (3) = (4) ×

( )❺ There are  and  , How many legs in total? (1)28 (2)20 (3)30 (4)24 legs..

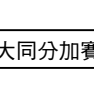
Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

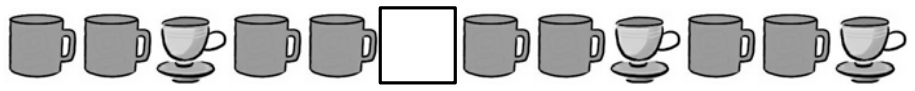
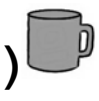
❶ 19 → 24 → 29 → _____ → 39

❷ 12、5、11、28， The odd numbers are _____ and _____.

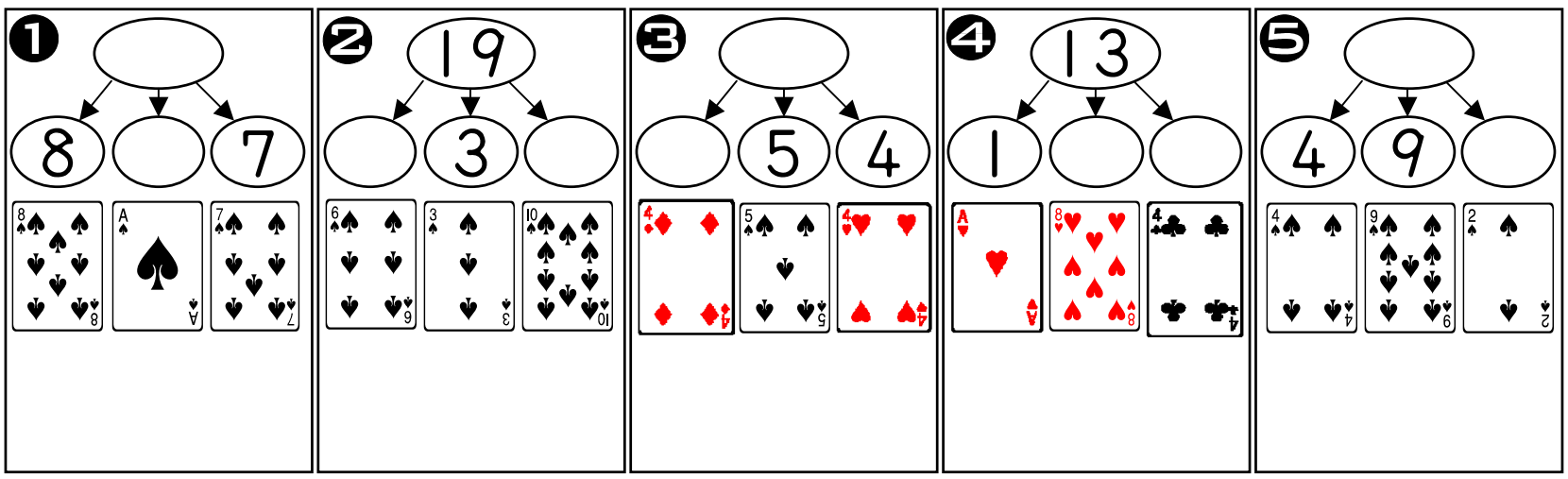
❸ 16、7、10、25， The even numbers are _____ and _____.

Which one is □? Tick ✔ in ( )

❹ ， □ = ( ) ( ) 

❺  ， □ = ( )  ( ) 

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*



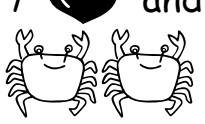
Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

❶ There are 12  and 18  , how many planes are there in all? _____ planes

❷ There are 21  , then 9  rode away, how many are left? _____ 

❸ 8  Were eaten, 13  were left, The original amount was _____  .

❹ There are 9  and 16  , how many  are more than  ? _____ radishs

❺  +  +  , How many legs in total? _____ legs

Student ID. _____

Primary 1

Set 2

Time Allowed : 3 minutes

Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

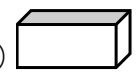
(元：dollars)

( )❶  , how many cars are there? (1) 5 (2) 6 (3) 8 (4) 9 cars.

( )❷  and  , The total number of fingers stretched out? (1)5 (2)6 (3)8 (4)9 fingers.

( )❸ 2 years ago, David was 4 years old. Now David is (1) 5 (2) 6 (3) 8 (4) 9 years old

( )❹ 3  and 8  , A total of (1) 48 (2) 38 (3) 83 (4) 803 dollars.

( )❺ Which one is easiest to roll? ①  ②  ③  ④ 

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

❶ 67 is _____ ones and 6 tens.

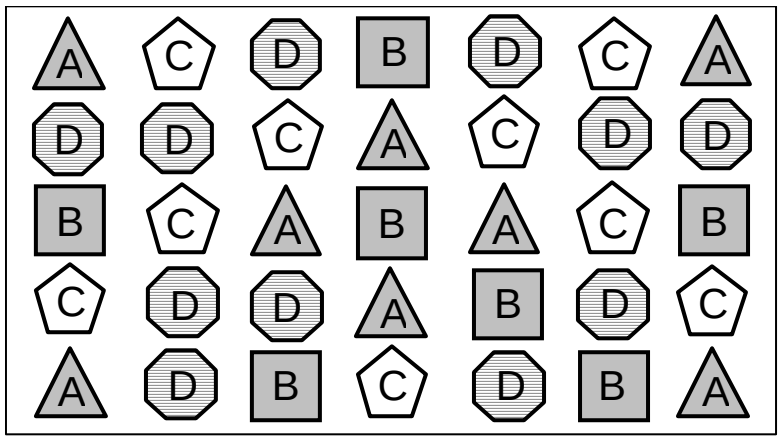
❷ There are _____ hours in half a day.

❸ The shorthand of the clock face moved a small interval is represents that it took _____ minutes.

❹ At 11:30, the minute hand is moved a half turn and it is _____ o'clock _____ minutes.

❺ One hundred eighty-five at most _____ tens.

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*



❶ The maximum amount is _____(fill code),
There are _____.

❷ The minimum amount is _____(fill code),
There are _____.

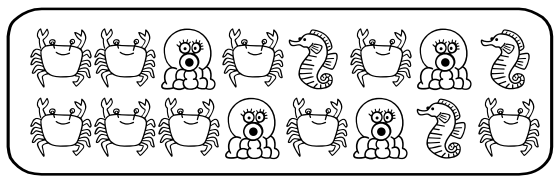
❸ There are _____  .

❹ There are _____  .

❺  +  −  = _____

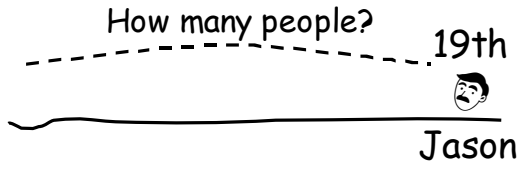
Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

( )❶ How many crabs?



( )❷ Which one is more than 8 o'clock?

( )❸ *Jason* is ranked 19th. How many people are in front of him?



( )❹ *Tommy* is ranked 7th. There are 8 people behind him. How many people in the queue?

( )❺ Red shoes 2 pairs. white shoes 3 pairs. How many shoes are there?

Student ID. _____ *Primary 2* Set 2

Time Allowed : 3 minutes

Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元：dollars)

( )❶ A=89−78, B=99−88, which one is larger? (1) A (2) B (3) both same (4) not necessarily

( )❷ The shorthand moves 5 small intervals is more than the longhand moves five 5-minute intervals (1) 35 (2) 55 (3) 30 (4) 0 minutes.

( )❸ Can a triangle have at least how many right angles? (1) 1 (2) 2 (3) 3 (4) 0 right angles.

( )❹ 60 元 can be exchanged for how many ⑤元? (1) 11 (2) 12 (3) 13 (4) 14 ⑤元

( )❺ The day before 1st August was
(1) 29th July (2) 30th July (3) 31st July (4) 31st June

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

❶ Three "6"s plus six "7"s are _____.

❷ A total of _____ 5-minute intervals in a clock face.

❸ The maximum 3-digit number minus the minimum 2-digit number is _____.

❹ It's _____ minutes to 3 o'clock.

❺  For _____ minutes before 6 o'clock.

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*

Family	 Grandpa	 Grandma	 Dad	 Mom	 Older Brother	 Older Sister	 Younger Brother
Age	72	68	46	41	15	11	7

❶ Mom and Dad a total of _____ years old.

❷ Older brother, older sister, and younger brother a total of _____ years old.

❸ Grandpa and Grandma a total of _____ years older than Dad and Mom.

❹ Grandpa's age is just the sum of the ages of _____, _____, and older sister.

❺ 5 years later. Dad and Mom a total of _____ years old.

Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

( )❶ *David* 6:40 every morning to get up. After 25 minutes go to school. It takes 20 minutes arrive at school. When is he arrive?

( )❷ Box A can contain 10 books. The capacity of the box B is 2 times of the A. C is 3 times of B. Box C can contain how many books?

( )❸ *Callie* has 9 ⑩元 and 3 ⑤元.Buy a book and pay 65 dollars. How much money is she left?

( )❹ There are 16 boys in class 2A. Boys more than girls 3 people. How many people are in the whole class?

( )❺ There are 36 people on the bus. Get off 24 people, and 18 people got on. Now, how many people on the bus?

Student ID. _____ *Primary 3* Set 2

Time Allowed : 3 minutes

Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元 : dollars)

( )❶ Counting from the Number Line to the right. The numbers will
(1) increasing (2) decreasing (3) not necessarily (4) all of the above.

( )❷ On the clock face. 3 o'clock. The hour and minute hands form an angle of
(1) 0 degrees (2) 60 degrees (3) 90 degrees (4) 180 degrees.

( )❸ $A=\frac{5}{6}$, $B=\frac{6}{5}$, Which one is larger? (1) A (2) B (3) both same (4) cannot compare.

( )❹ What is the difference between "2+2" and "2×2"?
(1) more than 8 (2) more than 2 (3) more than 4 (4) 0

( )❺ The hour hand moves from 6 to 10. The minute hand will make
(1) 6 revolutions (2) 5 revolutions (3) 3 revolutions (4) 4 revolutions.

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

❶ 7 dℓ +3 dℓ = _____ ℓ

❷ *Allen* said: "My tall is 40 mm higher than 118 cm.", He is _____ cm tall.

❸ There are same two numbers($\neq 0$). Divided by each other. The quotient must is _____

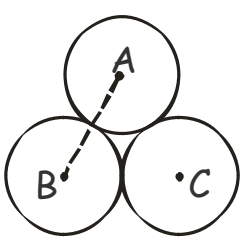
❹ 100 [1000元], 8 [100元] and 1 (10元), A total of _____ dollars.

❺ The maximum 4-digit number plus the minimum 4-digit number is _____.

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*

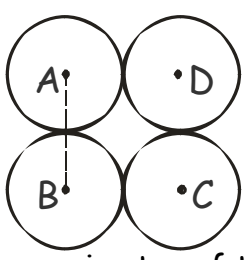
The radius of each circle is 5 cm.

❶



The perimeter of the triangle formed by A, B, and C is _____ cm.

❷



The perimeter of the quadrilateral formed by A, B, C, and D is _____ cm.

---

❸ 248 – _____ = 101

❹ 218 ÷ _____ = 72 ... 2

❺ $\frac{3}{13}+\frac{4}{13}+\frac{5}{13}=$ _____

Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

( )❶ With 10000 dollars to change 5 [1000元] and 3 [500元]. The remaining money can change how many [100元]?

( )❷ [0] [9] [7] [1], are digit cards. What is the minimum 4-digit number that you can arrange with the cards?

( )❸ The hotel has 8 dozen towels. How many towels are there?

( )❹ How many days are there from Christmas to New Year's Day?

( )❺ What is the difference between the maximum odd number and the minimum even number that between 5800 and 6400? (Not including 5800 and 6400)

Student ID. _____ *Primary 4* Set 2

Time Allowed : 3 minutes

Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元：dollars)

( )❶ The remainder of "1□4 ÷ 5=" may be (1) 0, 4 (2) 0 (3) 4, 5 (4) 4

( )❷ The side length of the cube increase by 3 times. The cube volume will increase to (1) 9 times (2) 81 times (3) 27 times (4) unchanged.

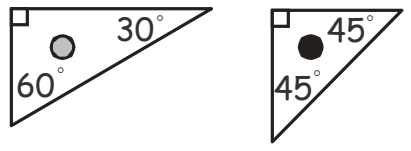
( )❸ 60−100÷A×2=40, then A= ① 10 ② 20 ③ 25 ④ 15

( )❹ You can draw an infinite radius inside a circle. So how many diameter can you have drawn? (1) infinite (2) 2 (3) 8 (4) 4 diameters.

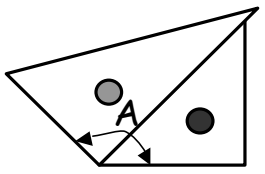
( )❺ 7749 ÷ 77, quotient is 100, then remainder is ① 16 ② 28 ③ 49 ④ 77

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

What is the degree of each angle?

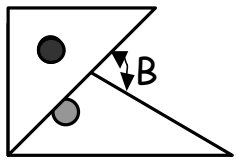


❶



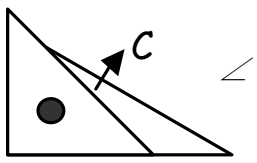
∠A= _____ °

❷



∠B= _____ °

❸



∠C= _____ °

❹ The leap year is _____ weeks and _____ days.

❺ It is now _____. Then after 25 minutes, it was 3:10.

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*

❶ $\frac{87}{90} + \frac{11}{90} - \frac{59}{90} =$ _____

❷ 12 + 14 + 16 + 18 + 20 = _____

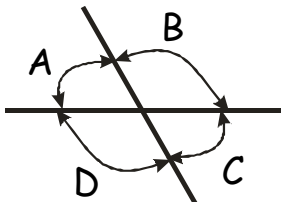
❸ 135 × 75 = 4□5 × 25, □ = _____

❹ 450 ÷ (4+5) = _____

❺ 72 ÷ 3 − 21 ÷ 3 = _____

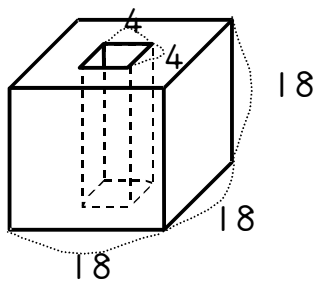
Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

( )❶ B is twice as much as A.
How many degrees is C ?



( )❷ 8 3 0 9 2 , are digit cards. What is the number closest to 30000 that you can arrange with the cards?

( )❸ Find the volume. (unit: cm)



( )❹ Earth distance from the sun is about 150 million km. The speed of light travels 300,000 km per second. How long does it take for light from the sun to reach Earth?

( )❺ *David* saves 80 dollars a day. *John* saves 60 dollars a day. After a few days, the savings between the two will be a difference of 1,000 dollars?

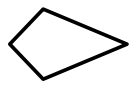
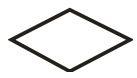
Student ID. _____ *Primary 5* Set 2

Time Allowed : 3 minutes

Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元：dollars)

( )❶ Which one is the kite shape? (1)  (2)  (3)  (4) 

( )❷ A×3=1, B×4=1, What is the difference between A and B? (1) $\frac{1}{12}$ (2) $\frac{1}{4}$ (3) $\frac{1}{6}$ (4) $\frac{7}{12}$

( )❸ 112 × 114 × 116 × 118 =, The digit in ones of the product is (1) 8 (2) 2 (3) 6 (4) 4

( )❹ How many vertices is the cylinder? (1) 1 (2) 2 (3) 3 (4) 0 vertices.

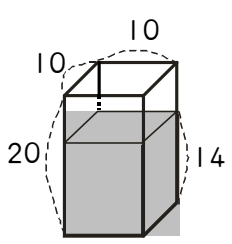
( )❺ Even numbers are multiplied by odd numbers. The product must be
(1) a composite number (2) a prime number (3) an odd number (4) an even number.

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

❶ To make 1234□ as a multiple of 9, □ should fill _____.

❷ After cutting the parallelogram along the diagonal. What shape can you spell again? _____ (not parallelogram)

Water container
Find the volume (unit: cm)



❸ The volume of water is _____ cm^3.

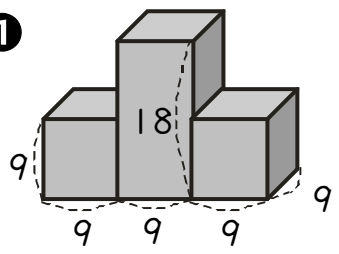
❹ Put a lead block and the water surface rises by 1 cm. The lead block volume is _____ cm^3.

❺ Put 4 iron balls and the water surface rises by 5 cm. Each iron ball volume is _____ cm^3

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*

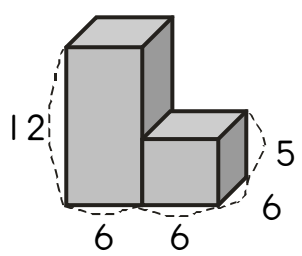
Find the surface area of each figure (unit: cm)

❶



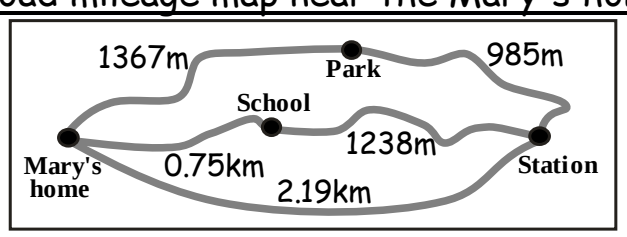
_____ cm^2

❷



_____ cm^2

Road mileage map near the Mary's home



❸ The longest distance from Mary's home to the station is _____ km.

❹ The shortest distance from Mary's home to the station is _____ km.

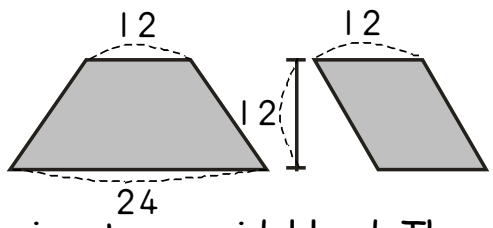
❺ The difference between the above two routes is _____ m.

Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

( )❶ There are four 2-digits numbers, 84, 79, □2, 9○, Its average is 80, Find □+○=?

( )❷ There is a 5-digits numbers, 8□82□, The figures in □ are the same. And this 5-digit number is a multiple of 9. Find □?

( )❸ As shown. What is the difference in the area of these two shapes? (Unit: cm)



( )❹ There is a trapezoidal land. The topline is 20 m. The baseline is 2 times topline and less than 4 m. The height is a half of the two line. Find the area?

( )❺ 3 ballpoints can change 12 pencils. Then how many pencils can you change by 7 ballpoints?

Student ID. _____	*Primary 6* Set 2 Time Allowed : 3 minutes	Score / 200

Part 1. Multiple Choice *(Each question 10 marks. Total 50 marks)*

(元：dollars)

( )❶ $\frac{1}{x}+\frac{1}{2x}+\frac{1}{3x}=\frac{11}{30}$, x = (1) $\frac{1}{30}$ (2) $\frac{5}{6}$ (3) 3 (4) 5

( )❷ 18 kg: 20 cm, the ratio is (1) 9 : 10 (2) 20 : 18 (3) 10 : 9 (4) cannot compare.

( )❸ The speed ratio between Car A and Car B is 2:3. Car A can be reached in an hour. How long does it take for Car B? (1) 40 (2) 60 (3) 75 (4) 90 minutes.

( )❹ $A \div \frac{1}{4} = B \div \frac{1}{3}$, Both A and B are greater than 0. Then the relationship between A and B is (1) A is larger (2) B is larger (3) both same (4) not necessarily.

( )❺ In the number of 9876543210, the value of "7" is greater than the value of "4" by (1) 6997000 (2) 69930000 (3) 69960000 (4) 4

Part 2. Fill in the blanks *(Each question 10 marks. Total 50 marks)*

❶ The decagonal pyramid and decagonal prism have a total of _____ vertices.

❷ As known 12.3 × 45 = 553.5, then 1.23 × 4.5 = _____

❸ Circle A and Circle B the diameter ratio is 3:4. The area ratio is _____.

❹ The side surface of the right cylinder is a square, and height = π . The right cylinder surface area is _____ square units. (π =3)

❺ There is a fan-shaped land area of 169.56 cm^2. The diameter is 24 m. The arc length is _____ m.

Part 3. Calculations *(Each question 10 marks. Total 50 marks)*

❶ $8\frac{1}{4} \div 1\frac{1}{2} + 7\frac{3}{4} \div 1\frac{1}{2} =$ _____

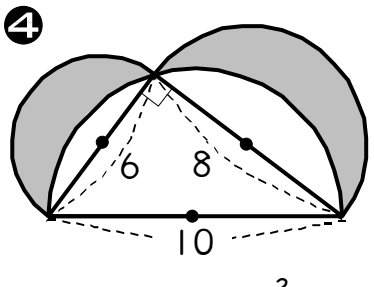
❷ $(\frac{3}{8}+\frac{2}{5}) \times 40 =$ _____

❸ 109 ÷ 3.14 = _____ ... _____

(Find the quotient to integer, and find the remainder)

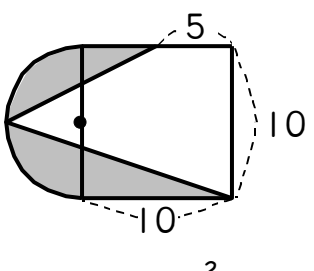
Find the area of the gray part. (π =3) (Unit:cm)

❹



_____cm^2

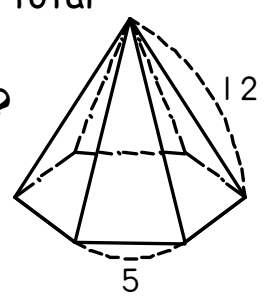
❺



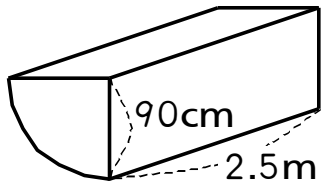
_____cm^2

Part 4. Applied Questions *(Each question 10 marks. Total 50 marks)*

( )❶ As shown. Find the total side length of the hexagonal pyramid? (Unit:cm)



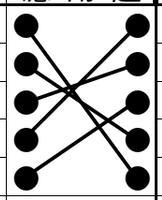
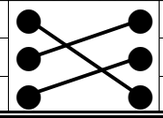
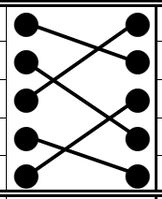
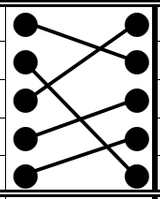
( )❷ Cut a tree into a $\frac{1}{4}$ cylinder. How many square meters is its surface area?

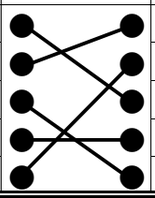
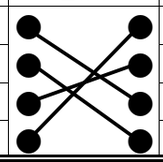


( )❸ (86−5 ×A) ÷ 3=7, A=?

( )❹ A bunch of 10元. With taking 6, 8, and 15 for each count are all less than 5 coins. How many dollars is this bunch of coins at least?

( )❺ Make a cup of 300 mℓ of coffee, The ratio of water, sugar and coffee is 4:2:3. How much water is required to make this cup of coffee?

年級	幼稚園中班					幼稚園大班					小學一年級					小學二年級				
項目	題數	選擇	填充題	計算題	應用題	題數	選擇	填充題	計算題	應用題	題數	選擇	填充題	計算題	應用題	題數	選擇	填充題	計算題	應用題
第一項目一般題	1	2	( )( )(∨)	4		1	4	(∨)( )	13	11	1	3	29	22	59th	1	2	6,6 (six, six)	130	10 cuboids
	2	3	( )(∨)( )	6		2	2	( )(∨)	14	10	2	2	9 (nine)	90	C	2	3	12	35	318 dollars
	3	1	( )(∨)( )	8		3	3	(∨)( )	11	15	3	4	7 (seven)	11	enough	3	4	7	27	205
	4	1	( )( )(∨)	3		4	1	( )(∨)	14	15	4	1	8 (eight)	92	49 dollars	4	1	17	413	865 dollars
	5	3	(∨)( )( )	2		5	4	(∨)( )	9	20	5	3	9	23	20 steps	5	3	26 (twenty six)	7, 72	4 groups
	6	3	( )(∨)	3	3	6	3	( )( )(∨)	12	20	6	2	( )(∨)( )	63	6 tens	6	1	42	608	20 legs
	7	2	(∨)( )	2	8	7	2	( )(∨)( )	5	21	7	1	( )( )(∨)	42	19	7	2	4 (four)	581	6 m
	8	1	( )(∨)	1	4	8	2	(∨)( )( )	1	9	8	1		7	22 cm	8	3	540, five hundred and forty	435	25 people
	9	3	(∨)( )	4	0	9	1	( )( )(∨)	8	5	9	4		3	37 pencils	9	4	×, —	36	younger sister
	10	2	( )(∨)	9	6	10	3	( )(∨)( )	18	3	10	3		B,C (C,B)	25 dollars	10	2	+, − (−, +)	8	976 cm
第一項目資優題	1	3	( )(∨)	4, 2		1	3	9 (nine)	15, 5		1	3	54, 70	7	12 days	1	4	7, 10	43	5 surfaces
	2	2	( )(∨)	11, 2		2	2	10 (ten)	2, 5		2	4	300	47	7 bundles and 7 pencils	2	3	2/11	85	19
	3	1	8	1, 4		3	1	6 (six)	19, 8		3	1	113	77	3, 4, 5	3	3	390	not enough	54 dollars
	4	2	6, 2 (2, 6)	10, 7		4	4	1,30 (one, thirty)	5, 9		4	3	+, −	81	82	4	1	B	enough	2m 10cm
	5	1	3, 1 (1, 3)	4, 3		5	2	8,30 (eight, thirty)	13, 8		5	2	−, −	17, 64	70th	5	2	505	100	43 marbles
同分加賽	1	1	6	2, 2	20	1	4	34	16, 1	30	1	1	7 (Seven)	D, 11	9 crabs	1	3	60	87	7:25
	2	3	8	7, 3	5	2	4	5, 11	6, 10	12	2	4	12 (twelve)	B, 7	C	2	1	12	33	60 books
	3	2	9	2, 4	3	3	2	16, 10	13, 4	21	3	2	12	8	18 people	3	4	989	53	40 dollars
	4	1	8	8, 4	6, 24	4	1	( )(V)	8, 4	7	4	3	12, 0	0	15 people	4	2	22	Dad, Older Brother	29 people
	5	1	9	7, 3	24	5	3	( )(V)	15, 2	20	5	2	18 (eighteen)	5	10 shoes	5	3	5	97	30 people

年級	小學三年級					小學四年級					小學五年級					小學六年級				
項目	題數	選擇	填充題	計算題	應用題	題數	選擇	填充題	計算題	應用題	題數	選擇	填充題	計算題	應用題	題數	選擇	填充題	計算題	應用題
第一項目一般題	1	3	39/50	15, 4	3.6 kg	1	2	4 (four)	1, 600	15 cm	1	4	50	1184.33	49	1	1	rhombus	3 and 9/20	78 m
	2	4	1, 40	405	29cm 6mm	2	1	2 (two)	56, 38	86400 seconds	2	2	8	597	12 cm^2	2	2	1.5	10	1720 cm^3
	3	2	2, 46	3.1	8 cars	3	3	A	31/34	6000 cm^2	3	3	110	36, 30	2 hours 8 minutes	3	2	48.5	9/13	8
	4	3	<	8100	brown rice	4	4	seconds	823	7 hours	4	1	45	62 and 6/7	8400 dollars	4	4	white	2 and 3/4	1and 1/5 times
	5	1	>	11	5000m (5km)	5	2	405	13.58	75000 peoples	5	1	66	280.865	60000 dollars	5	3	352	315.4	2 boxes
	6	3	80, 9	9/20	3/16	6	3		142	1 and 1/12	6	2	160	0.13	144 m^2	6	1	25	803.84	3/4(75%, 0.75)
	7	1	4	1 (10/10)	229	7	1		345	2240 dollars	7	3		116.872 (116 and 109/125)	162.948 cm	7	3	18/100(18%，9/50)	24	C
	8	4	5	7/19	77.7	8	2		260	Class B, 26 people	8	4		1632	275 cm	8	2	32	24	460 boys
	9	2	70, 100 (100, 70)	75	Tiffany	9	4		2400	82.5 liters	9	1		70 and 5/6	all the same	9	4	50	36	20 km
	10	1	33	56	124 cm^3	10	1		2200	10.4 km	10	2		96	100 dollars	10	3	0	8	60 km
第一項目資優題	1	3	saturday	65/99	9 cm^3	1	2	7, 10	12	54000 km	1	1	12, 60	422.61	1008 cm^2	1	4	7/36	3/35	60 cm
	2	4	wednesday	0.1	75 cm	2	1	17	21, 27	11/18	2	2	A	10	1 and 11/25 (1.44) cm^2	2	1	251	19/20 (0.95)	7/12
	3	2	40000	9/11	654	3	3	4/15	1 and 14/19	1320	3	3	8	6	6.3 kiloliters	3	2	99	7 and 1/2 (7.5)	4 cars
	4	1	175000	26, 312	20.4	4	4	60	64	822.5 km	4	4	0.327	2047/2048	35	4	4	70	20	8 cm
	5	3	87500	2340, 468	363 cm^2	5	1	102	1500	13 cups	5	1	1.553	168	decreased	5	3	56	22.5	100 km
同分加賽	1	1	1	30	35(banknotes)	1	4	135	39/90 (13/30)	60 degrees	1	2	8	1458	11	1	4	31	10 and 2/3	102 m
	2	3	118.4	40	1079	2	3	75	80	29830	2	1	rectangle (kite)	492	0 (9)	2	4	5.535	31	9.09 m2
	3	2	1 (one)	147	96 towels	3	1	15	0	5544 cm^2	3	4	1400	2.352	72 cm^2	3	1	9/16	34, 2.24	13
	4	4	100810	3	8天	4	1	52, 2	50	500 seconds	4	4	100	1.988	784 m^2	4	2	10.5	24	1150 dollars
	5	4	10999	12/13	597	5	3	2:45	17	50天	5	4	125	364	28枝	5	3	28.26	50	133 and 1/3 mℓ

Student ID. _____

The Seventh Grade Set 1

Time Allowed :15 minutes

Score / 300

( )1. Mom's money can just buy 15 kg of beef or 20 kg of pork. If Mom bought 6 kg of beef first, the remaining money can buy how many kilograms of pork?

(A) 6 kg
(B) 8 kg
(C) 9 kg
(D) 12 kg

( )2. $\begin{cases} 2x-y=7 \\ 3x+ay=5 \end{cases}$, There is exactly one solution. Then a cannot be

(A) -2 (B) $-\frac{3}{2}$ (C) -1 (D) $-\frac{1}{2}$

( )3. $-1<x<0$, then $(x+\frac{1}{x}, x-\frac{1}{x})$ in which quadrant?

(A) The first quadrant
(B) The second quadrant
(C) The third quadrant
(D) The fourth quadrant

( )4. From $P(2a-1, 5-b)$ to x-axis the distance is 3, to y-axis the distance is 5. then $a-b$ cannot be

(A) -1
(B) -4
(C) -5
(D) -10

( )5. Line $ax+by=3$ is through $(6, -6)$, and the vertical y-axis. Find $a-b$=?

(A) 1 (B) -1
(C) 2 (D) -2

( )6. The area of the triangle enclosed by $3x+by=18$ and the x-axes and y-axes is 54 square units. It does not pass through the second quadrant. Find b=?

(A) 1
(B) -1
(C) 2
(D) -2

( )7. $a:b=2:3$, Which of the following is correct?

(A) $a+1:b+1=3:4$
(B) $a+b:b^2=5:9$
(C) $a^2:b^2=4:9$
(D) All of the above

( )8. $3a=2b$, $a:c=4:5$, $(a, b, c)=120$, Find $a+b-c$=?

(A) 10 (B) 12 (C) 14 (D) 16

( )9. The three sides of the triangle are a, b, c. Respectively corresponding to the height ha, hb, hc. If $a:b=1\frac{1}{2}:1\frac{1}{3}$, $b:c=0.2:0.3$, Find $ha:hb:hc$=?

(A) 9:8:12
(B) 12:8:9
(C) 8:9:6
(D) 6:9:8

( )10. x and y are in inverse proportion. $y+1$ and $z-1$ are in direct proportion. when $x=4$ and $y=9$, $z=21$. then $x=6$, z=?

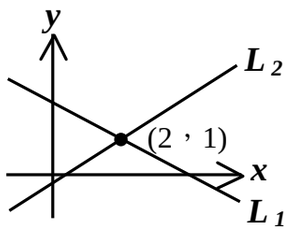
(A) 11 (B) 13 (C) 15 (D) 17

( )11. $f(x)=x^{99}+33x^{33}+2x^2-1$, Find $f(3)+f(-3)$ =?

(A) 17
(B) −17
(C) 34
(D) −34

( )12. $L_1: y=ax+b$, $L_2: y=cx+d$, Which of the following is correct?

(A) $3a+b>3c+d$
(B) $3a+b=3c+d$
(C) $3a+b<3c+d$
(D) Can not be determined



( )13. $0<a<1$, Which of the following is wrong?

(A) $a<\frac{1}{a}$
(B) $a^2<a$
(C) $-a>-\frac{1}{a}$
(D) $-a^2<-a$

( )14. $a<0$, $2ax>6a$, The solution of this inequality is

(A) $x>-3$
(B) $x<-3$
(C) $x>3$
(D) $x<3$

( )15. There are x rooms in the dormitory. If 5 students live in each room, There are 2 students left without dormitories. If 6 students live in each room, There is one room has the live students but it is not full. How many rooms are there?

(A) 6 rooms (B) 7 rooms (C) 8 rooms (D) 9 rooms

( )16. The solution of $5x-26<2-x<2x+1$ is $a<x<b$, Find $a+b$ =?

(A) 2
(B) 3
(C) 4
(D) 5

( )17. $f(x)$ is a constant function, and $f(1)+f(2)+f(3)=6$, Find $f(-1)+f(-2)$=?

(A) −4
(B) −2
(C) 2
(D) 4

( )18. A and B exchange $\frac{1}{4}$ of their money with each other. As a result, A became twice as much as B. The ratio of the original money of A and B is

(A) 2：1
(B) 3：1
(C) 4：1
(D) 5：1

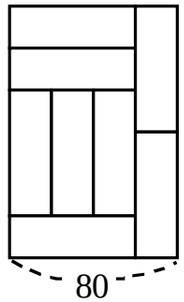
( )19. If the velocity is increased by 25%. When the same distance. How much time will be reduced?

(A) 15%
(B) 20%
(C) 25%
(D) 30%

( )20. The original x dollars. y dollars spent. The remaining money is half the original, and more than 200 dollars. Then 800 dollars spent. The last remaining money is $\frac{1}{3}$ the original, and less than 100 dollars. Find $x+y$=?

(A) 4000 (B) 4300 (C) 4600 (D) 4900 dollars

( )21. Take the same small rectangle to make the large rectangle. The small rectangle has an area of



(A) 800 cm^2
(B) 1000 cm^2
(C) 1200 cm^2
(D) 1600 cm^2

( )22. The intersection of $L_1 : ax + 3y = 6$ and $L_2 : 2x - by = -3$ is on the x-axis. , Find a =?

(A) -4 (B) $-\frac{7}{2}$
(C) -3 (D) $-\frac{5}{2}$

( )23. $P(a-b, ab)$ in the fourth quadrant, Which of the following is wrong?

(A) (b, a) in the second quadrant
(B) $(ab, b-a)$ in the second quadrant
(C) $(a^2, -b^2)$ in the fourth quadrant
(D) $(\frac{b}{a}, a+b)$ in the second quadrant

( )24. $x - y = 13$, $2x + 3y = -4$, $3x + ay = 18$, Find a = ?

(A) -2
(B) $-\frac{1}{2}$
(C) $\frac{1}{2}$
(D) 2

( )25. x km mountain road. Uphill speed is 2 *km* per hour. Downhill speed is 3 *km* per hour. The round trip took less than 3 hours. If x is an integer. Then the maximum value of x is

(A) 2 *km* (B) 3 *km* (C) 4 *km* (D) 5 *km*

( )26. More than 50 tickets for the amusement park ticket are 15% off. Then at least how many people buy 50 tickets will be cheaper?

(A) 41 (B) 42 (C) 43 (D) 44 people

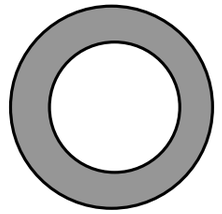
( )27. Which of the following is wrong?

(A) Height is a function of seat number
(B) Weight is a function of height
(C) Seat number is a function of weight
(D) Weight is a function of seat number

Seat Number	1	2	3	4	5
Height	165	172	165	170	178
Weight	51	60	48	55	61

( )28. If the ring area is $\frac{7}{16}$ times the whole circle area.

The whole circle radius : The ring radius is



(A) 4：3
(B) 9：7
(C) 16：7
(D) 16：9

( )29. A walking distance of 4 steps is equal to B walking 5 steps. A walking time of 3 steps is equal to B walking 4 steps. What is the speed ratio of A and B?

(A) 3：5
(B) 5：3
(C) 15：16
(D) 16：15

( )30. (1) x and y are in direct proportion. then x is increased, and y is increased.
(2) x and y are in inverse proportion. then x is reduced, and y is reduced.
(3) If x is increased, and y is increased. then x and y are in direct proportion.
(4) If x is reduced, and y is reduced. then x and y are in inverse proportion.
How many items of the above are correct?

(A) 0 items (B) 1 items (C) 2 items (D) 3 items

Student ID. _____

The Eighth Grade Set 1

Time Allowed :15 minutes

Score / 300

( )1. The arithmetic sequence $a_1+a_2+a_3=27$, $a_{28}+a_{29}+a_{30}=63$, Find S_{30} =?

(A) 300 (B) 450 (C) 600 (D) 900

( )2. The triangle $2(\angle A+\angle C)=3\angle B+10$, Find the supplementary angle of $\angle$B?

(A) 100°
(B) 105°
(C) 110°
(D) 115°

( )3. Insert M number between -8 and 12, so that the sequence is equal to the arithmetic sequence, and the total number of M is 18. Find insert the fourth term?

(A) -2
(B) 0
(C) 2
(D) 4

( )4. $1+2-3+4+5-6+7+8-9+\cdots+100=?$

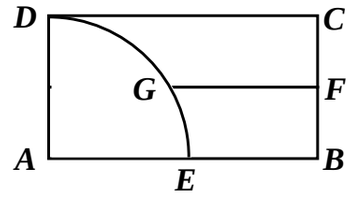
(A) 1584 (B) 1634
(C) 1684 (D) 1734

( )5. Point $P(-1,-4)$ has an axis of symmetry with $y=-2$. There will be a symmetric point (a, b). Find $a-b$=?

(A) -1
(B) 0
(C) 1
(D) 2

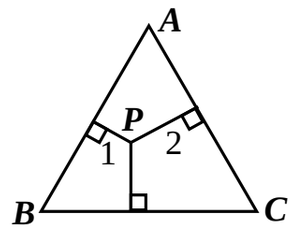
( )6. Rectangle $ABCD$. F is the $\overline{BC}$ midpoint. $\overline{GF}\perp\overline{BC}$, Find $\angle AGF$=?

(A) 110°
(B) 120°
(C) 135°
(D) 150°



( )7. The side length of the regular triangle ABC is 8. P is an internal point. If the P to $\overline{AB}$ distance is 1. The P to $\overline{AC}$ distance is 2. P to $\overline{BC}$ distance is closest to

(A) 2
(B) 2.5
(C) 3
(D) 3.5



( )8. In A, B as the center of a circle. $\overline{AB}$ is the diameter. each circle is drawn. How many intersection points do these two circles have?

(A) 0 points (B) 1 points
(C) 2 points (D) cannot be determined

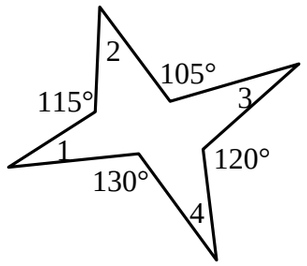
( )9. $\triangle ABC$, $\angle A=100^\circ$, The angular bisector of $\angle B$ and $\angle C$ crosses at point P. Find $\angle BPC$=?

(A) 120°
(B) 130°
(C) 140°
(D) 150°

( )10. A convex polygon. If there is missing 1 interior angle, the sum of the interior angle is 2018°. This polygon will have

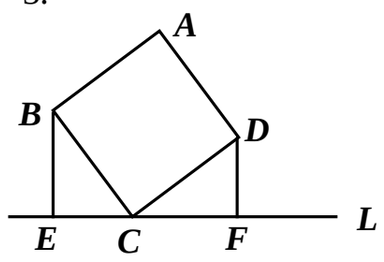
(A) 44 (B) 54 (C) 65 (D) 77 diagonals

( )11. $\angle 1+\angle 2+\angle 3+\angle 4=?$



(A) 110°
(B) 120°
(C) 130°
(D) 140°

( )12. Square $ABCD$, $\overline{BE}$, $\overline{DF} \perp L$. $\overline{BE}=3$. $\overline{DF}=2$. Find $\overline{AC}$ =?



(A) $\sqrt{13}$
(B) $\sqrt{19}$
(C) $\sqrt{23}$
(D) $\sqrt{26}$

( )13. Triangle ABC, $\overline{AB}=\sqrt{4}+\sqrt{9}$, $\overline{BC}=\sqrt{5}+\sqrt{8}$, $\overline{CA}=\sqrt{6}+\sqrt{7}$, Which is the largest angle?

(A) $\angle A$
(B) $\angle B$
(C) $\angle C$
(D) cannot be determined

( )14. Which of the following statements does not determine the ABCD as a parallelogram?

(A) $\angle A+\angle B=180^\circ$, $\angle C+\angle D=180^\circ$
(B) $\angle A=\angle C$, $\angle A+\angle B=180^\circ$
(C) $\overline{AB}=\overline{CD}$, $\overline{AB}\,//\,\overline{CD}$
(D) $\overline{AC}$, $\overline{BD}$ bisect each other

( )15. It's 4:08, What is the angle between the minute hand and the hour hand?

(A) 70° (B) 72° (C) 74° (D) 76°

( )16. The circle has a radius of 6 cm . If a chord length is 6 cm . The segment area enclosed with the minor arc will be closest to

(A) 3 cm^2
(B) 4 cm^2
(C) 5 cm^2
(D) 6 cm^2

( )17. Arithmetic series $\sqrt{3}+\frac{2}{\sqrt{3}-1}+\frac{-1}{\sqrt{3}-2}+\cdots+a_{10}$ is

(A) $45+10\sqrt{3}$
(B) $50+10\sqrt{3}$
(C) $45+20\sqrt{3}$
(D) $150+10\sqrt{3}$

( )18. The interior angle of the decagon is an arithmetic sequence. The common difference is 4. The minimum interior angle is

(A) 120°
(B) 122°
(C) 124°
(D) 126°

( )19. The parallelogram has a axis of symmetry. The rectangle has b axes of symmetry. The regular triangle has c axes of symmetry. The regular pentagon has d axes of symmetry. Find $a+b+c+d$=?

(A) 5
(B) 7
(C) 9
(D) 10

( )20. Parallelogram $ABCD$, $\overline{AB}=10$, $\overline{BC}=8$, $\angle D=60^\circ$, Find area?

(A) 20 (B) 40 (C) $20\sqrt{3}$ (D) $40\sqrt{3}$

( )21. The three numbers are the arithmetic sequence. The sum of three numbers is 24. The product of three numbers is 312. Find common difference?

(A) 3
(B) 4
(C) 5
(D) 6

( )22. Triangle ABC, The $\overline{BC}$ midpoint is D. The $\overline{BD}$ midpoint is E. The $\overline{DE}$ midpoint is F. Find $\triangle ABF : \triangle ACF$?

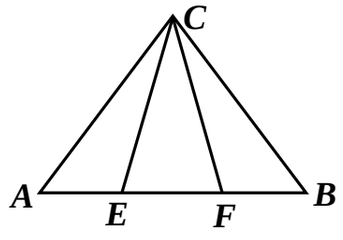
(A) 1：7
(B) 3：5
(C) 5：3
(D) 7：1

( )23. A, B on the different side of Line L, And $\overline{AB}$ midpoint is not on Line L. How many $\triangle PAB$ can be found on the line L as isosceles triangles?

(A) 1 isosceles triangles
(B) 2 isosceles triangles
(C) 3 isosceles triangles
(D) 4 isosceles triangles

( )24. Triangle ABC, $\angle ACB=100^\circ$, $\overline{AF}=\overline{AC}$, $\overline{BE}=\overline{BC}$, Find $\angle ECF$?

(A) 38°
(B) 40°
(C) 42°
(D) 44°

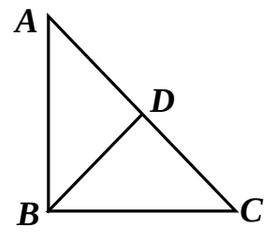


( )25. Arithmetic sequence $a_3=2^3$, $a_7=2^7$, Find a_{10}=?

(A) 2^{10} (B) 2^8 (C) 218 (D) 164

( )26. Triangle ABC, $\angle ABC=90^\circ$, $\angle A=46^\circ$, $\overline{BD}$ is the angular bisector. Which of the following is correct?

(A) $\overline{AD}>\overline{BD}>\overline{CD}$
(B) $\overline{AD}<\overline{BD}<\overline{CD}$
(C) $\overline{BD}>\overline{AD}>\overline{CD}$
(D) $\overline{BD}>\overline{CD}>\overline{AD}$



( )27. Which of the following can be the sum of 50 consecutive positive integers?

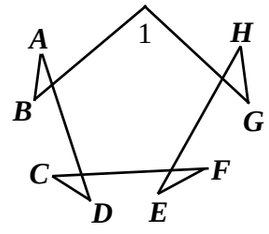
(A) 2601545
(B) 2601565
(C) 2601575
(D) 2601585

( )28. The interior angle of the n-shape (polygon) is an arithmetic sequence with a common difference of 5°. If the maximum interior angle is 160°, Find n=?

(A) 9 (B) 10 (C) 11 (D) 12

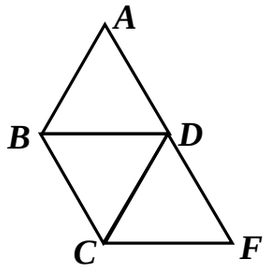
( )29. If $\angle 1=104^\circ$, Find $\angle A+\angle B+\angle C+\angle D+\angle E+\angle F+\angle H+\angle G$ = ?

(A) 256°
(B) 264°
(C) 276°
(D) 284°



( )30. Diamond $ABCD$ and parallelogram $BCFD$, Which of the following is correct?

(A) $\angle A=\angle BCD$
(B) $\angle ABD=\angle DFC$
(C) $\overline{AB}=\overline{DF}$
(D) $\angle CBD=\angle CDF$



Student ID. _____

The Ninth Grade Set 1

Time Allowed :15 minutes

Score / 300

( )1. The vertex of the quadratic function is (1, 3). And intersects the x-axis at two points A, B. $\overline{AB}=5$. Then in $f(2)$, $f(3)$, $f(4)$, $f(5)$, how many are positive?

(A) 1 (B) 2 (C) 3 (D) 4

( )2. $y=a(x-h)^2+k$, Passes through $(0,-4)$, $(8,-2)$, If $a>0$, $0<k<8$, The possible range of h is

(A) $0<h<4$
(B) $h=4$
(C) $4<h<8$
(D) cannot be determined

( )3. $y=x^2-2x+a$ moves left by b units. Then move down 5 units. Get $y=x^2+6x+c$, Find $a+b-c=?$

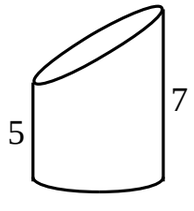
(A) 1
(B) 2
(C) 3
(D) 4

( )4. Rectangular $ABCD$. If $\overline{AB}+\overline{BC}+\overline{CD}=100$. The maximum area of the rectangle is

(A) 1000 (B) 1250 (C) 1500 (D) 2000

( )5. As shown. The undersurface diameter is 12 cm . Find volume?

(A) $216\pi\ cm^3$
(B) $432\pi\ cm^3$
(C) $648\pi\ cm^3$
(D) $864\pi\ cm^3$



( )6. The radius of the cone undersurface is 2 cm. The distance from the vertex to the undersurface is $4\sqrt{2}$ cm. Find the surface area?

(A) $16\pi\ cm^2$
(B) $18\pi\ cm^2$
(C) $20\pi\ cm^2$
(D) $22\pi\ cm^2$

( )7. 1, 2, 3, 4, 5, 6, Take any number x, Hence x, $x+8$, $x+11$ will be the sides of a triangle, this probability is

(A) $\frac{1}{6}$ (B) $\frac{1}{3}$ (C) $\frac{1}{2}$ (D) $\frac{2}{3}$

( )8. Take any number of positive integers from 1 to 50. Find the probability of being a multiple of 2 or 3?

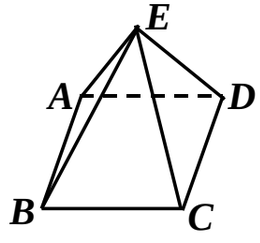
(A) $\frac{31}{50}$ (B) $\frac{33}{50}$ (C) $\frac{37}{50}$ (D) $\frac{41}{50}$

( )9. There are 1, 2, 3, 4, 5, 6 six balls in the bag. The probability of each ball being taken is the same. If A takes a ball and puts it back, B took another ball. Then the probability of $A>B$ is

(A) $\frac{13}{36}$ (B) $\frac{5}{12}$ (C) $\frac{1}{2}$ (D) $\frac{5}{9}$

( )10. The quadrangular pyramid goes from A to C (The same vertex cannot go through twice). How many ways will there be?

(A) 6 ways
(B) 7 ways
(C) 8 ways
(D) 9 ways



( )11. The average scores of Classes A, B are a, b points. Quartile range is c, d. , Which of the following is correct?

(A) $a>b$
(B) $a<b$
(C) $c>d$
(D) $c<d$

Average scores (points)	30	40	50
Class A (students)	10	10	10
Class B (students)	5	15	5

( )12. 1, 1, 2, 3, 4, a, 10, 11, b, c, 17, 19 (arranged from small to large)，If $Q_3=14$, The average is 8.5, Find a=?

(A) 5
(B) 6
(C) 7
(D) 8

( )13. The average score for boys is 56 points. The average score for girls is 48 points. If the average score for whole class is 54 points. The number of boys : The number of girls is

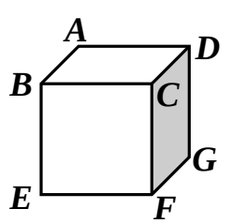
(A) 1：1 (B) 2：1 (C) 3：1 (D) 3：2

( )14. The sum of the side length of the regular hexagonal prism is 96 *cm*. Regular hexagonal prism height is 10 *cm*. Find volume?

(A) $90\sqrt{3}\ cm^3$
(B) $135\sqrt{3}\ cm^3$
(C) $180\sqrt{3}\ cm^3$
(D) $225\sqrt{3}\ cm^3$

( )15. The side length of the cube is 4 *cm*. Then the area of the $\triangle BDF$ is

(A) $4\sqrt{3}\ cm^2$
(B) $6\sqrt{3}\ cm^2$
(C) $8\sqrt{3}\ cm^2$
(D) $12\sqrt{3}\ cm^2$



( )16. The vertex of $y=3x^2+12x+a$ is (m, n), IF $m-n=6$, Find a=?

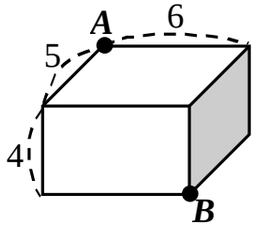
(A) –4
(B) –2
(C) 2
(D) 4

( )17. The segment where $y=ax^2$, $y=bx^2$ and $y=-4$ intersect is $\overline{A_1A_2}$, $\overline{B_1B_2}$. The line segment where $y=cx^2$, $y=dx^2$ and $y=4$ intersect is $\overline{C_1C_2}$, $\overline{D_1D_2}$. If $\overline{A_1A_2}>\overline{B_1B_2}>\overline{C_1C_2}>\overline{D_1D_2}$, Then

(A) $a>b>c>d$
(B) $a>b>d>c$
(C) $d>c>b>a$
(D) $d>c>a>b$

( )18. The shortest distance from point $A$to point B is

(A) $\sqrt{113}$
(B) $\sqrt{117}$
(C) $\sqrt{125}$
(D) $\sqrt{137}$



( )19. The sum of the side lengths of the cuboid is 48 *cm*. The surface area is 80 cm^2. The longest diagonal in the cuboid is

(A) 8 *cm*
(B) $6\sqrt{2}\ cm$
(C) $4\sqrt{5}\ cm$
(D) 9 *cm*

( )20. How many intersection points does $y=-3333(x+\sqrt{5555})^2-\sqrt{7777}$ and x-axis have?

(A) 0 points
(B) 1 points
(C) 2 points
(D) cannot be determined

( )21. There are two points $A(-2, a)$, $B(4, b)$ on $y=\frac{1}{2}x^2$. The area of the $\triangle AOB$ is

(A) 8
(B) 10
(C) 12
(D) 14

( )22. A : 6 ☐ 8 , B : ☐ 4 5 , Fill the number 1 to 9 in ☐. The probability of $A>B$ is

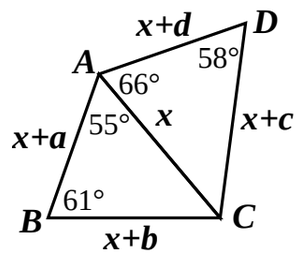
(A) $\frac{49}{81}$ (B) $\frac{50}{81}$ (C) $\frac{51}{81}$ (D) $\frac{52}{81}$

( )23. $y=ax^2+bx+c$ intersects the x axis at $(-4, 0)$ and $(2, 0)$. *First* moves right by h units. Then move up by k units. Let y' pass through $(0, 8)$ and $(6, 8)$. Find $h=?$

(A) 3
(B) 4
(C) 5
(D) 6

( )24. As shown, (1) $a>b$ (2) $c>d$ (3) $ac>0$ (4) $bd>0$, How many items of the above are correct?

(A) 1 item
(B) 2 items
(C) 3 items
(D) 4 items



( )25. $f(x)=ax^2+bx+c$, vertex is $(-2, 4)$. The $f(x)$ and x-axes intersect at point P, Q., and $\overline{PQ}=2$, Find $f(0)=?$

(A) −12
(B) −20
(C) −32
(D) −36

( )26. There are 5 positive integers. The Average number is 4. The Median is 4. The Mode is 6. What is the difference between maximum and minimum?

(A) 3
(B) 4
(C) 5
(D) 6

( )27. At the same time throwing two fair dice to get a, b two points. The probability of $a+b$ being a prime number is 13/36

(A) $\frac{13}{36}$ (B) $\frac{14}{36}$ (C) $\frac{15}{36}$ (D) $\frac{16}{36}$

( )28. There are 64 consecutive integers and the sum is 2^{10}, Find Median $=?$

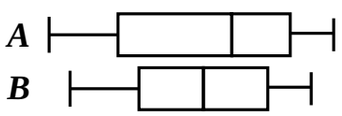
(A) 8
(B) 12
(C) 16
(D) 20

( )29. $\triangle ABC$ is an isosceles triangle, $\overline{AB}=\overline{AC}=10$, $\overline{BC}=8$, If $\triangle ABC \sim \triangle ADE \sim \triangle BCE$. Find $\overline{DE}=?$

(A) $\frac{72}{25}$ (B) $\frac{70}{25}$ (C) $\frac{60}{25}$ (D) $\frac{45}{25}$

( )30. As shown, The boxplots of classes A and B. Which of the following is wrong?

(A) Range $A>B$
(B) Median $A>B$
(C) Average $A>B$
(D) Quartile range $A>B$



Student ID. _____

The Seventh Grade Set 2

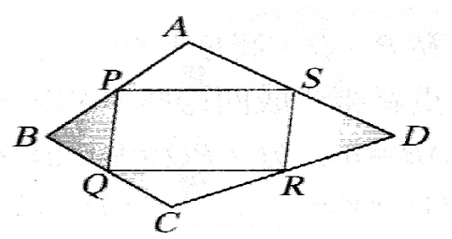
Time Allowed :3 minutes

Score / 100

( )1. If the side length of the square becomes three times the original. The perimeter will be *A* times the perimeter of the original square. The area will become *B* times the area of the original square. Find *A* + *B* =?

(A) 6 (B) 9
(C) 12 (D) 15

( )2. As Shown, The midpoint of each side of the quadrilateral *ABCD* are *P*, *Q*, *R*, *S*. If $\overline{AC}$ = 8 cm. $\overline{BD}$ = 14 cm. Find the perimeter of the quadrilateral *PQRS*?



(A) 20 cm
(B) 22 cm
(C) 24 cm
(D) 26 cm

( )3. The science of numbers.

(A) Addition (B) Arithmetic (C) Subtraction (D) Quotient

( )4. Each soap costs *x* dollars. Each box costs is 15 dollars.There are 12 soaps loaded into the box. How much is the cost per box of soap?

(A) 12*x* dollars
(B) (15+12*x*) dollars
(C) (15*x*+12) dollars
(D) 27*x* dollars

( )5. The radius of the circle *O* is 18 cm. Then The fan-shaped area with a central angle of 300° is several times the fan-shaped area with a central angle of 60°?

(A) 3 times (B) 4 times
(C) 5 times (D) 6 times

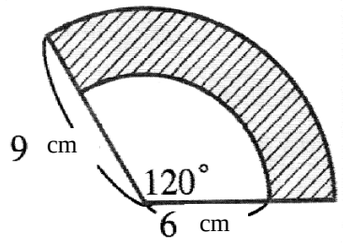
( )6. The undersurface of a trapezoidal prism, the topline is 8 cm, the baseline is 15 cm, the height is 10 cm. If its volume is 1380 cm3, Find the height of this trapezoidal prism?

(A) 6 cm
(B) 12 cm
(C) 18 cm
(D) 24 cm

( )7. Which quadrilateral diagonal is must be equal and bisect to each other?

(A) parallelogram
(B) rectangle
(C) rhombus
(D) isosceles trapezoid

( )8. Find the perimeter of the shadow area?



(A) 15 π +6 cm
(B) 12 π +6 cm
(C) 10 π +6 cm
(D) 8 π +6 cm

( )9. In which place value is the number 7 in the number 675?

(A) In the ones
(B) In the tens
(C) In the hundreds
(D) None of these

( )10. It is known that isosceles trapezoid *ABCD* has two lateral sides $\overline{AB}$ = $\overline{CD}$ =6 cm. Connecting the midpoints on two lateral sides the length is 9 cm. Find the perimeter of an isosceles trapezoid *ABCD*?

(A) 26 cm (B) 28 cm (C) 30 cm (D) 32 cm

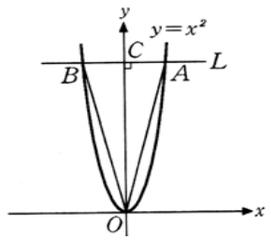
Student ID. _____

The Eighth Grade Set 2

Time Allowed :3 minutes

Score / 100

( )1. As shown, The line L is parallel to the x-axis, and intersect with the parabola $y=x^2$ at two points A and B. O is the origin. Point A is in the first quadrant. If $\triangle AOB$ area is equal to 64, and $\triangle ABO$ is a regular triangle, Find Point B coordinate?

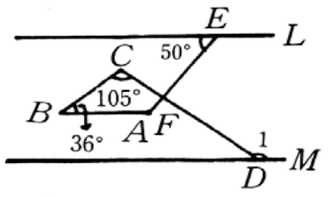


(A) $(-\sqrt{3}, 5)$
(B) $(-\sqrt{2}, 5)$
(C) $(-\sqrt{3}, 3)$
(D) $(-\sqrt{2}, 3)$

( )2. A radius of the circle is 10 cm. In this circle, the fan-shape central angle is 216°. Find the circumference of this fan-shape?

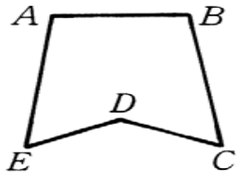
(A) $(20+12\pi)$ (B) $(20+14\pi)$ (C) $(20+16\pi)$ (D) $(20+18\pi)$ cm

( )3. As shown, $L \parallel M$. $\overline{AB} \parallel L$. Find $\angle 1=?$



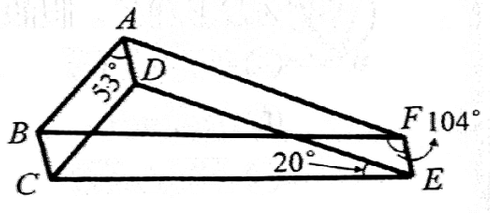
(A) 140°
(B) 141°
(C) 142°
(D) 145°

( )4. As shown, If $\angle CDE=140°$. Find $\angle A+\angle B+\angle C+\angle E=?$



(A) 300°
(B) 310°
(C) 320°
(D) 330°。

( )5. As shown, On the same plane, Quadrilateral *ABCD*, Quadrilateral *BCEF*, and Quadrilateral *ADEF* are all parallelograms., and $\angle BAD=53°$, $\angle EFB=104°$, $\angle DEC=20°$, Find $\angle CDE=?$

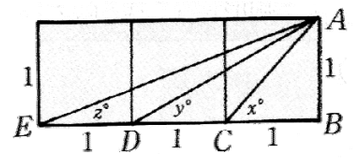


(A) 109°
(B) 110°
(C) 111°
(D) 112°

( )6. There are 25 orange trees in an orchard. Each tree can produce an average of 450 oranges. If in this orchard, more planting 1 tree. the average production of each tree will be reduced by 10. Find the maximum orange production capacity in this orchard?

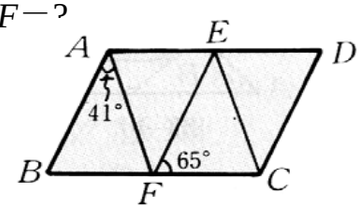
(A) 12200 (B) 12250 (C) 12300 (D) 12350 oranges

( )7. As shown, It consists of three squares with a side length of 1 unit. What is the correct description of the following?



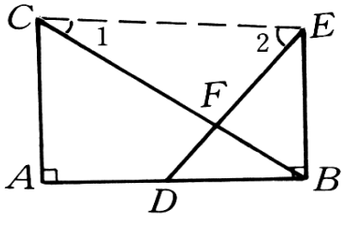
(A) because the opposite side of $x^\circ, y^\circ, z^\circ$ is $\overline{AB}=1$, therefore $x^\circ=y^\circ=z^\circ$
(B) because $\overline{AC}<\overline{AD}<\overline{AE}$, therefore $x^\circ<y^\circ<z^\circ$
(C) Because by exterior angle theorem of the triangle. therefore $x^\circ>y^\circ>z^\circ$
(D) Because $x^\circ, y^\circ, z^\circ$ are in different triangles, therefore can't compare

( )8. As known $\overline{AD} \parallel \overline{BC}$, $\overline{AB} \parallel \overline{EF} \parallel \overline{CD}$, $\overline{AF} \parallel \overline{CE}$, If $\angle EFC=65°$, $\angle BAF=41°$, Find $\angle CED-\angle CEF-?$



(A) 33°
(B) 34°
(C) 35°
(D) 36°

( )9. As shown, $\angle CAB=\angle EBD=90°$, $\angle ACB=55°$, $\angle DEB=40°$. Find $\angle 1+\angle 2=?$



(A) 81°
(B) 82°
(C) 87°
(D) 90°

( )10. Round off 10.5942 connects to two decimal places.

(A) 11.00 (B) 10.50 (C) 10.58 (D) 10.59

Student ID. _____

The Ninth Grade Set 2

Time Allowed :3 minutes

Score / 100

( )1. The arithmetic mean of the two integers a and b is 5. One of the geometric mean is 4. Find a^2+b^2=?

(A) 78 (B) 70 (C) 68 (D) 60

( )2. There is a geometric series with a total of 9 terms. The first term is 2. The 3rd term is 8. If the common ratio is negative. What is the sum of the geometric series?

(A) 342 (B) 1022 (C) –174 (D) –582

( )3. The family population of 10 students in a class is as follows: 8, 4, 4, 5, 4, 9, 9, 8, 5, 4; If the Arithmetic Mean is *A*, the Median is *B*, the Mode is *C*, Find $A+B+C$=?

(A) 12 (B) 15 (C) 16 (D) 18

( )4. If there is no relationship between the various types of statistics, and we want to compare them, which of the following statistic chart is required?

(A) bar chart
(B) histogram
(C) line chart
(D) pie chart

( )5. In a Igroup of numerical data. The most frequently occurring value is called the

(A) Arithmetic Mean
(B) Median
(C) Mode
(D) All above

( )6. If 20, 50, 100 are added to the same number, they will be in a geometric series. What is this number?

(A) 16 (B) 20 (C) 25 (D) 45

( )7. There is an arithmetic sequence with a total of 20 terms. The sum of the first 4 terms is 72. The sum of the last 4 terms is 1096. What is the common difference?

(A) 16 (B) 12 (C) 18 (D) 24

( )8. It is given that $m : n = 2 : 7$ and $n - m = 45$. Find the value of m?

(A) 10
(B) 18
(C) 35
(D) 63

( )9. It is known that the 15th term of an arithmetic sequence is –25. The 32nd term is –42. Find the 25th term?

(A) –34
(B) –35
(C) –36
(D) –37

( )10. Throwing two dice twice, what is the probability that the numbers will be the same?

(A) $\frac{1}{5}$ (B) $\frac{1}{6}$ (C) $\frac{1}{3}$ (D) $\frac{1}{4}$