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# Education Bureau

## Territory-wide System Assessment 2023

### Primary 6

### Mathematics

#### Instructions:

1. Stick barcode labels on pages 1, 3, 5, 7 and 9 in the spaces provided.
2. There are 39 questions in this test. Answer all questions.
3. Time allowed is 50 minutes.
4. Write your answers in this Question-Answer Booklet.
5. Do not write in the margins.
6. Use of calculators is not allowed.
7. Do your rough work on the rough work sheet provided.
8. Write your School Code, Class and Class Number in the boxes below.

#### Instructions for answering questions:

(a) Multiple choice questions – Blacken the circle next to the correct answer with an **HB pencil**.

For example:

- A
- B
- C
- D

(b) Questions in which you are asked to “Show your working” – Write your mathematical expressions, answers and statements/conclusions in the spaces provided. There is **NO** need to show your rough work.

(c) Other types of questions – Answer as required in the spaces provided.

School Code  
學校編號

<b>P</b>			
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Class  
班別

<b>6</b>	
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Class No.  
班號

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Write one **capital letter** in this box

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1. Arrange the following numbers from the smallest to the largest.

518 400 , 3 127 000 , 395 600

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
(Smallest) (Largest)

2. Which of the following numbers is a multiple of 24?

- A. 12
- B. 52
- C. 96
- D. 154

3. Which of the following numbers are common factors of 12 and 18?

(Circle all the answers)

1

4

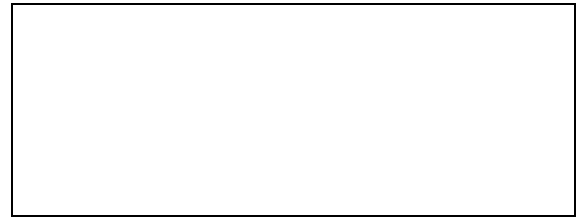
6

18

36

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4. Which of the following numbers is the Least Common Multiple (L.C.M.) of 9 and 15?

- A. 3
- B. 45
- C. 90
- D. 135

5. (a) Convert  $4\frac{3}{8}$  to an improper fraction.

Answer:

(b) Fill in the box with a correct number.

$$\frac{16}{30} = \frac{48}{\boxed{\phantom{000}}}$$

Please do not write in the margin.

6. Arrange the following numbers from the largest to the smallest.

$$1\frac{5}{12}, \quad \frac{8}{9}, \quad \frac{11}{6}$$

Answer: , ,   
(Largest) (Smallest)

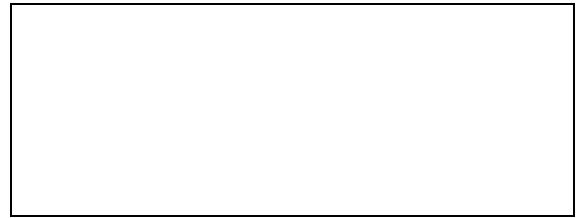
7. Which of the following numbers has the digit '3' in its thousandths place?

- A. 73 019  
 B. 19.037  
 C. 9.3701  
 D. 7.0139

8. Convert 0.06 to a fraction in lowest terms.

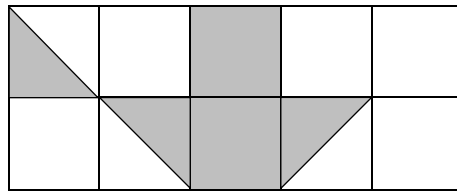
Answer:

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9. What percentage of the whole figure below is shaded?



Answer: \_\_\_\_\_ % of the whole figure is shaded.

10. (a) Convert  $1\frac{9}{10}$  to a percentage.

Answer: \_\_\_\_\_ %

(b) Convert 7% to a decimal.

Answer: \_\_\_\_\_

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11.  $14 \times 38 - 9 \times 38 =$  \_\_\_\_\_

12.  $\frac{5}{6} \div 8 \times \frac{4}{5} =$

13.  $6 - 1\frac{1}{3} \times \frac{3}{8} =$

14.  $1.3 \times 4.2 =$  \_\_\_\_\_

15.  $4 \div 3.5 =$  \_\_\_\_\_

(Round the answer to two decimal places)

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16. A juice store has 5 litres of orange juice originally. After selling  $4\frac{1}{2}$  litres,  $1\frac{3}{4}$  litres more orange juice is made.

Now the juice store has  litre(s) of orange juice.

17. Each lollipop costs  $2\frac{1}{5}$  dollars. Ada has 13 dollars.

At most, she can buy  lollipops.

18. Aaron paid 165 dollars for half a dozen cakes.

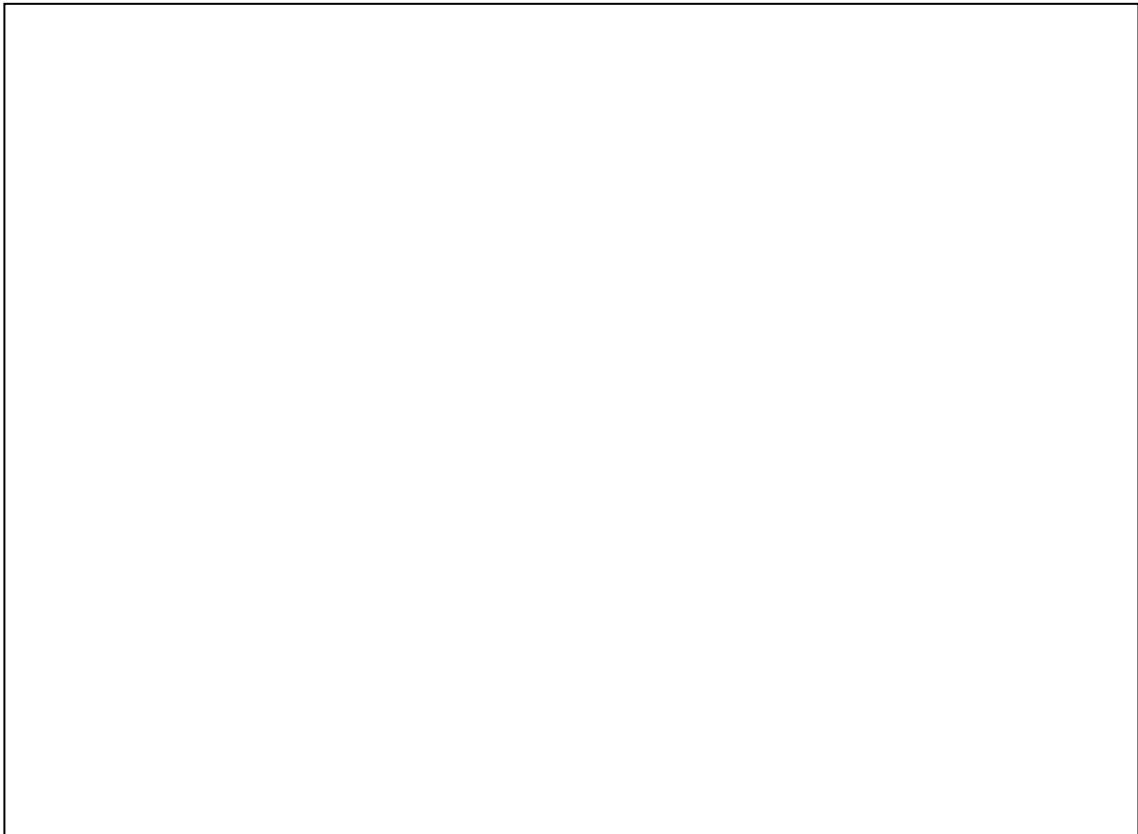
On average, each cake costs \_\_\_\_\_ dollars.

(Give the answer in decimals)

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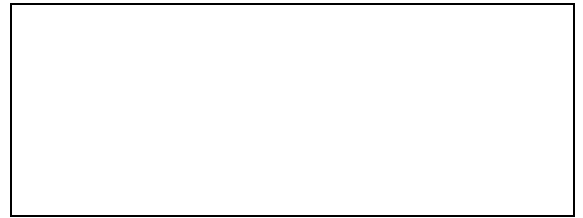
19. A regular pack of milk powder weighs 800 grams. The weight of a value pack of milk powder is 20% more than that of a regular pack. How many grams does a value pack of milk powder weigh?  
(Show your working)



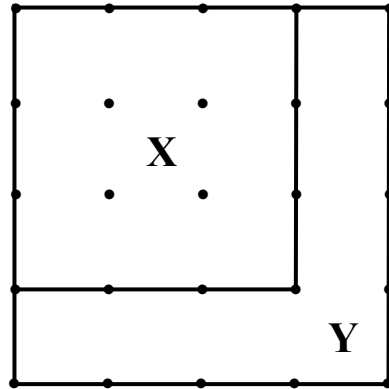
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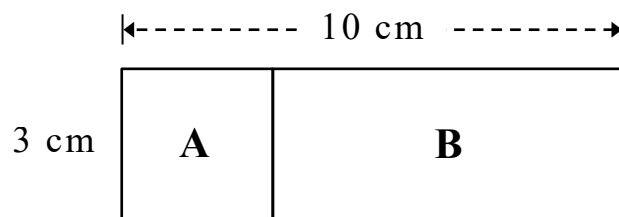
20.



Study the diagram above. Which of the following statements is correct?

- A. The perimeter of **X** is shorter than that of **Y**.
- B. The perimeter of **X** is longer than that of **Y**.
- C. The perimeters of **X** and **Y** are the same.
- D. The perimeters of **X** and **Y** cannot be compared.

21.



The figure above is made up of square **A** and rectangle **B**.

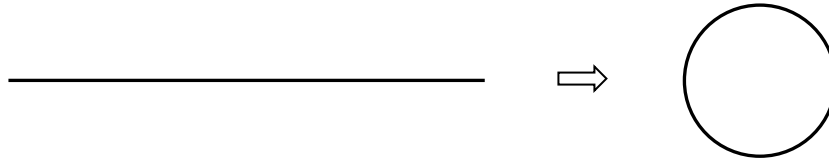
- (a) The perimeter of square **A** is \_\_\_\_\_ cm.
- (b) The area of rectangle **B** is \_\_\_\_\_  $\text{cm}^2$ .

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Please do not write in the margin.

Please do not write in the margin.

22.

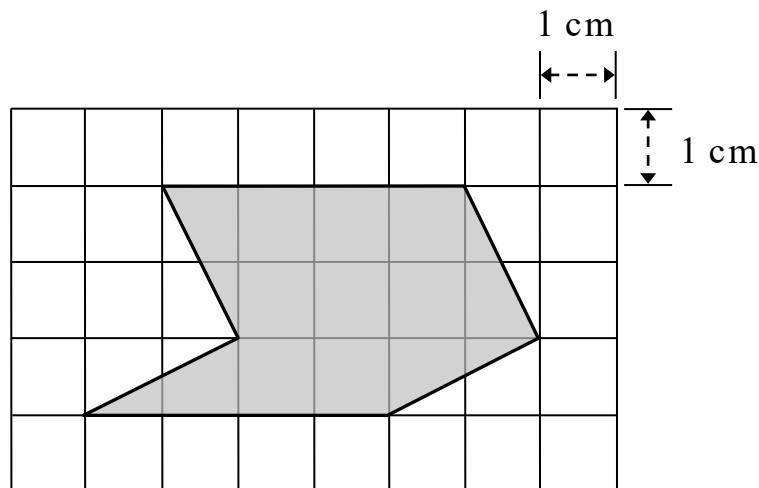


A string 16 cm long is used to make the largest circle.

The diameter of the circle is about

- A. 2.5 cm.
- B. 5 cm.
- C. 6 cm.
- D. 50 cm.

23. In the following diagram, the side of each square is 1 cm.

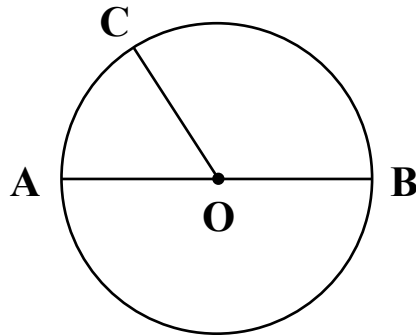


The area of the shaded part is \_\_\_\_\_  $\text{cm}^2$ .

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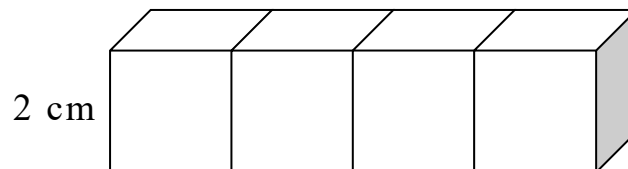
Please do not write in the margin.

24. In the figure below, **O** is the centre of the circle. **A**, **B** and **C** are points on the circumference.



- (a) **AB** is 6 cm long. **OC** is \_\_\_\_\_ cm long.
- (b) The area of the circle is \_\_\_\_\_  $\text{cm}^2$ .  
(Take  $\pi$  as 3.14)

25.

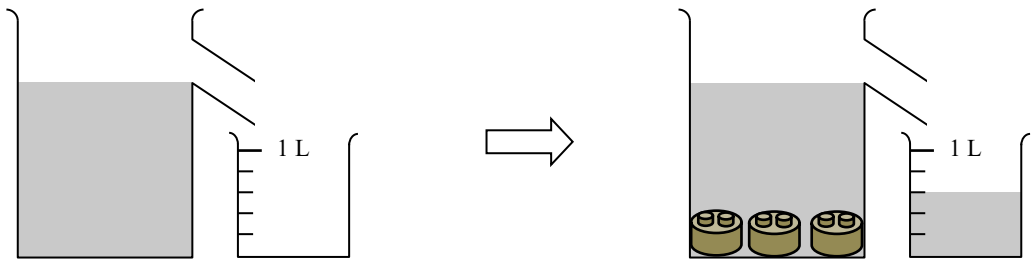


The cuboid above is made up of four cubes. The side of each cube is 2 cm. The volume of the cuboid is \_\_\_\_\_  $\text{cm}^3$ .

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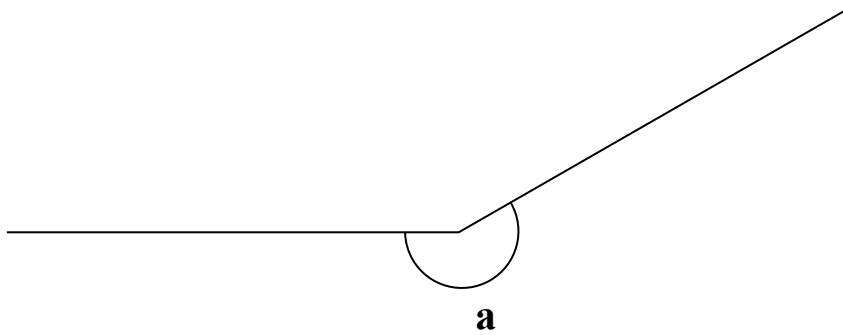
26.



The volume of each  is \_\_\_\_\_  $\text{cm}^3$ .

27. Mr Lee drove through a tunnel at an average speed of 80 kilometres per hour. It took him  $\frac{1}{10}$  hour. The tunnel is \_\_\_\_\_ kilometre(s) long.

28. Measure  $\angle a$  below with a protractor.



$\angle a =$  \_\_\_\_\_

(Give the answer with a unit)

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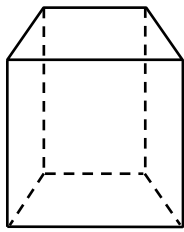
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29. Find the average of the five numbers below.

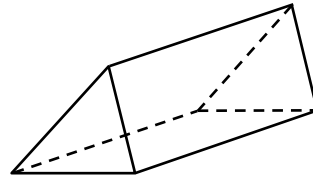
8.9 , 43.6 , 24.5 , 31.1 , 12.4

Answer: The average is \_\_\_\_\_ .

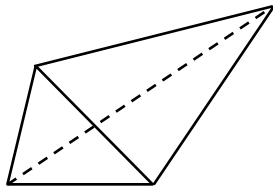
30. Which of the following 3-D shapes has 6 faces?



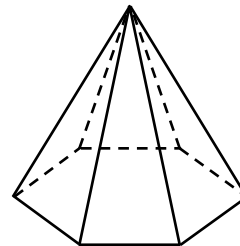
A.



B.



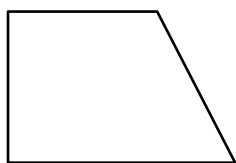
C.



D.

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31.



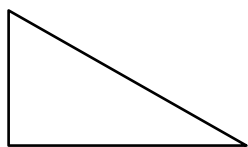
The figure above is a

\* parallelogram / trapezium / rhombus .

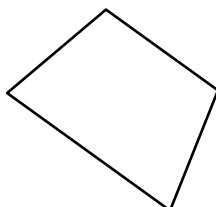
(\*Circle the answer)

It has \_\_\_\_\_ pair(s) of opposite sides parallel.

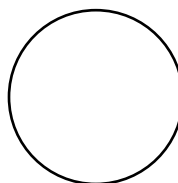
32. Study the 2-D shapes below. Write all the letter(s) for the answer.



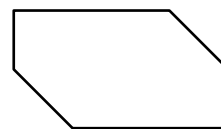
A



B



C



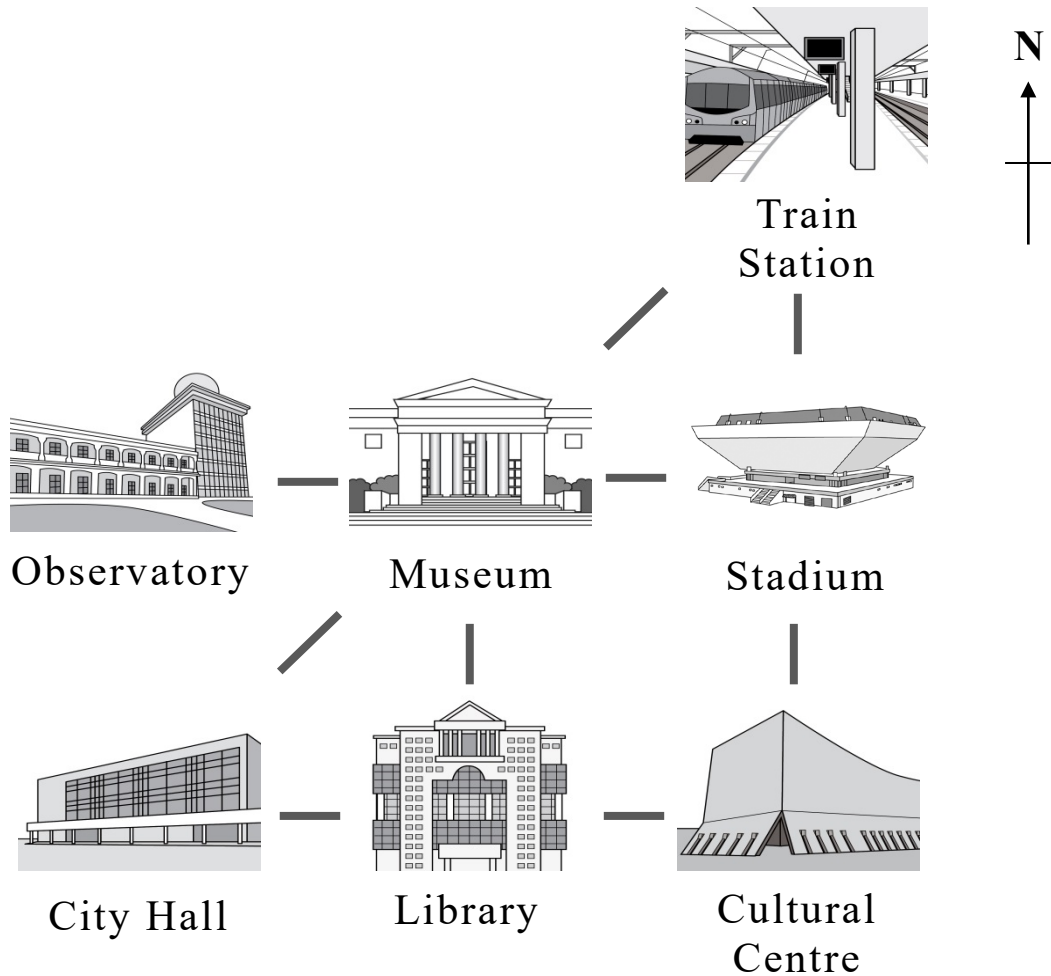
D

List the axially symmetric shape(s).

Answer: \_\_\_\_\_

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33. The location map of the facilities in a city is shown below.



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(a) Starting from Train Station, Katy goes

\_\_\_\_\_ to reach City Hall.

(direction)

(b) To the south of Museum is \_\_\_\_\_ .

(c) \_\_\_\_\_ is to the west of Stadium  
and to the north-east of City Hall.

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34. Joe got 82 marks in the last Mathematics test and  $y$  marks this time. What is his average mark in these two tests?

A.  $82 + y$

B.  $\frac{y + 82}{2}$

C.  $82y$

D.  $\frac{y - 82}{2}$

35. Which of the following is an equation?

A.  $2(y + 1)$

B.  $2 + 1 = 3$

C.  $2 = 3y$

D.  $\frac{3y}{2} + 1$

36.  $6x - 1 = 5$

$x =$

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37. A number is divided by 4 and then minus 9. The result is 3. Find the number by *the method of solving an equation*.

(Show your working)

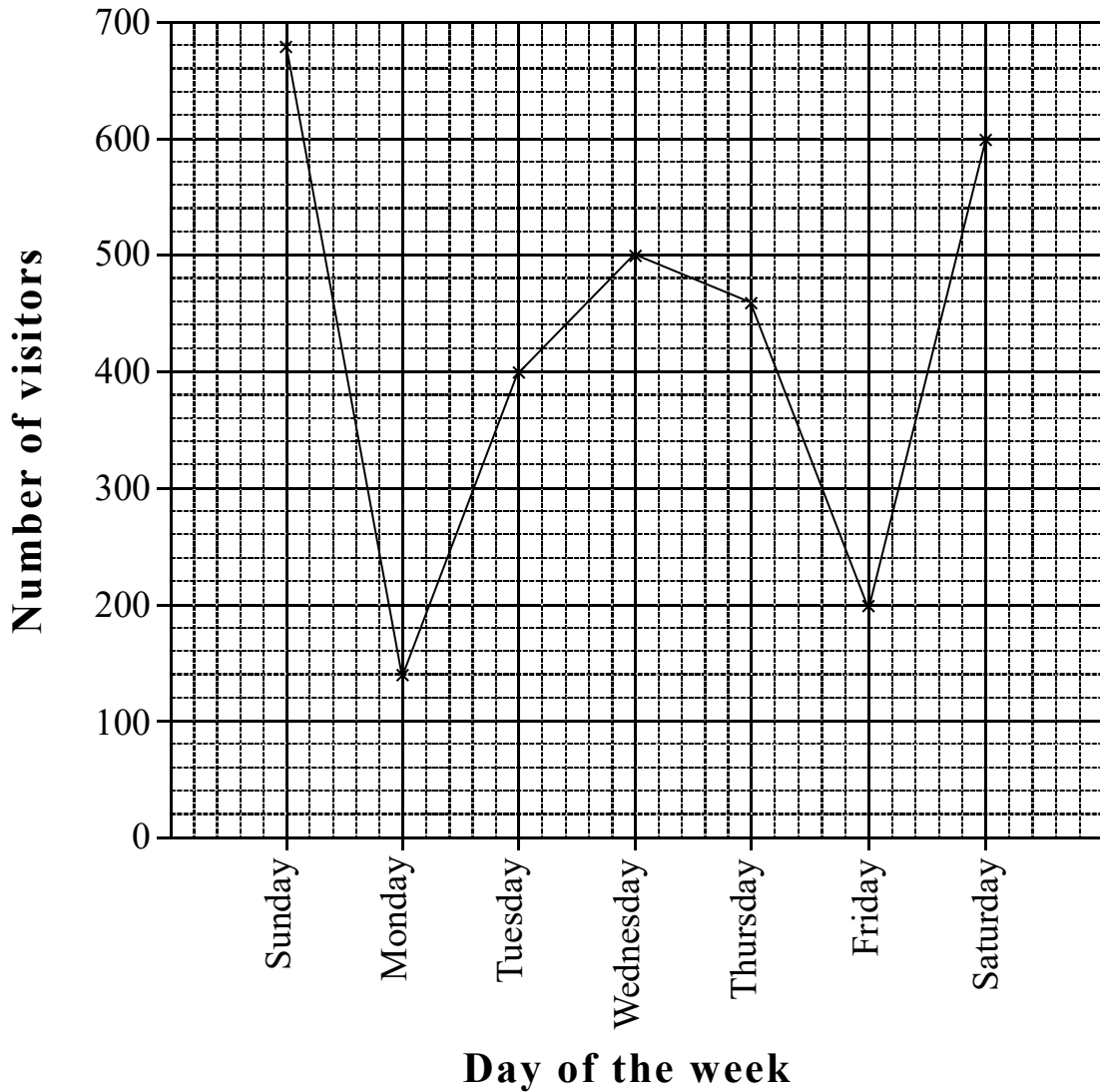


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38. The following broken line graph shows the number of visitors to the theme park last week.

**Number of Visitors to the Theme Park Last Week**



- (a) The number of visitors on \_\_\_\_\_ was the  
(day of week)  
smallest. There were \_\_\_\_\_ visitors only.
- (b) The number of visitors on Saturday was  
\_\_\_\_\_ times that of Friday.

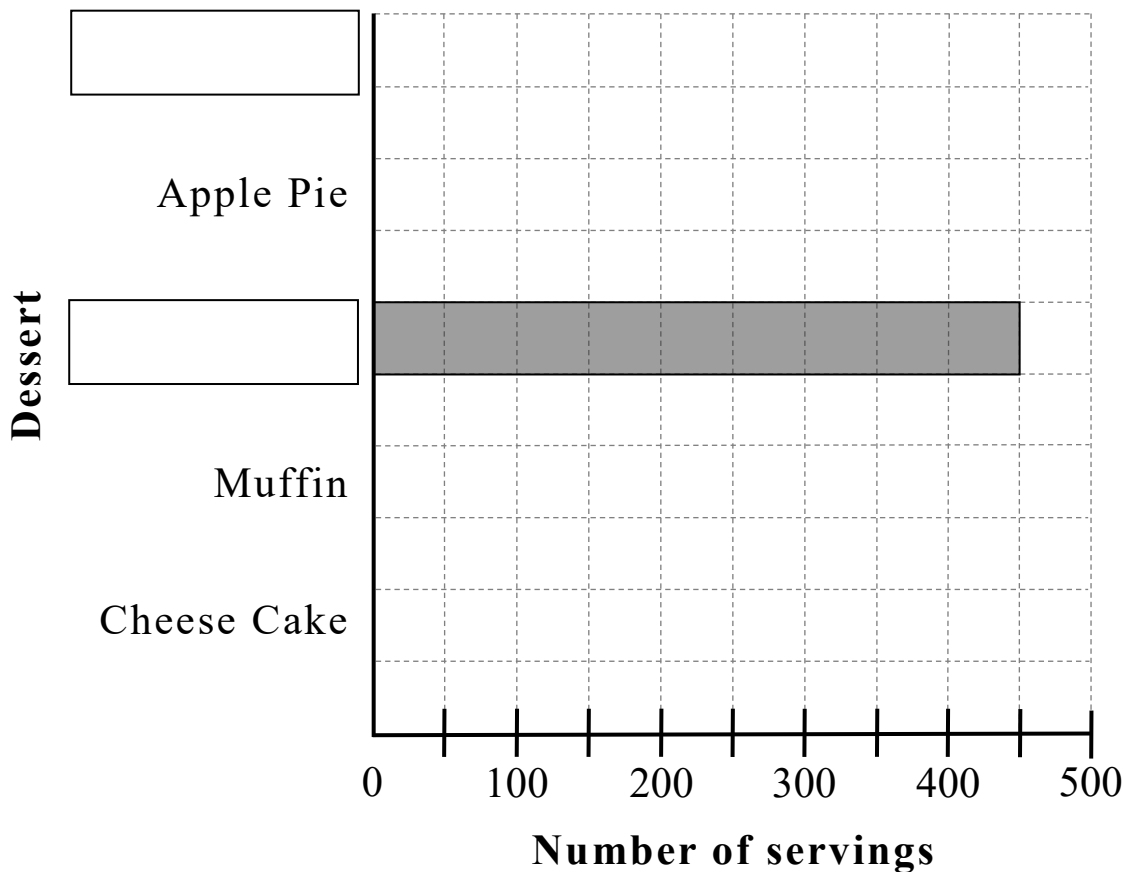
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39. The table below shows the sales of different kinds of desserts at Happy House last week.

Dessert	Pudding	Apple Pie	Ice Cream	Muffin	Cheese Cake
Number of servings	350	200	450	100	150

According to the information above, use a pencil to complete the following bar chart. Give it a title and add the names of the desserts.

(Title)



— END OF PAPER —

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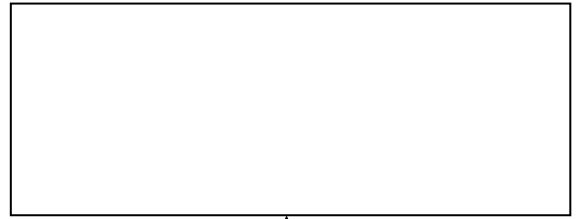
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6 M E 2



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# Education Bureau

## Territory-wide System Assessment 2023

### Primary 6

### Mathematics

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6. Use of calculators is not allowed.
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8. Write your School Code, Class and Class Number in the boxes below.

#### Instructions for answering questions:

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For example:
- A
  - B
  - C
  - D
- (b) Questions in which you are asked to “Show your working” – Write your mathematical expressions, answers and statements/conclusions in the spaces provided. There is **NO** need to show your rough work.
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School Code  
學校編號

<b>P</b>			
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Class  
班別

<b>6</b>	
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Class No.  
班號

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1. Which of the following numbers has the digit '2' in its millions place?

- A. 152 699 400
- B. 28 345 010
- C. 9 724 000
- D. 271 803

2. Which of the following numbers are prime numbers?  
(Circle all the answers)

17

49

51

83

99

3. List all the factors of 16.

Answer: \_\_\_\_\_

4. Which of the following numbers is the Least Common Multiple (L.C.M.) of 9 and 15?

- A. 3
- B. 45
- C. 90
- D. 135

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5. (a) Convert  $\frac{31}{2}$  to a mixed number.

Answer:

- (b) Fill in the box with a correct number.

$$\frac{35}{42} = \frac{\boxed{\phantom{000}}}{6}$$

6. Arrange the following numbers from the largest to the smallest.

$$1\frac{5}{12}, \quad \frac{8}{9}, \quad \frac{11}{6}$$

Answer:

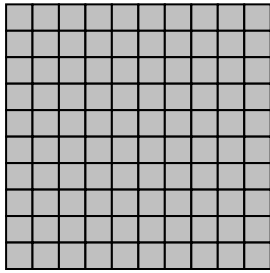
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,

(Largest)

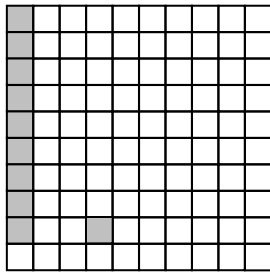
(Smallest)

7.



stands for 1.

Represent the shaded parts in the diagram below with a decimal.



- A. 10
- B. 0.91
- C. 0.1
- D. 0.01

8. Convert 0.06 to a fraction in lowest terms.

Answer:



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9. (a) Convert  $1\frac{9}{10}$  to a percentage.

Answer: \_\_\_\_\_ %

(b) Convert 7% to a decimal.

Answer: \_\_\_\_\_

10. When 694 is divided by 21, the quotient is \_\_\_\_\_  
and the remainder is \_\_\_\_\_.

11.  $\frac{3}{10} + 2\frac{1}{4} - 1\frac{2}{5} =$

Please do not write in the margin.

Please do not write in the margin.

12.  $8\frac{1}{10} \div 1\frac{4}{5} =$

13.  $1.3 \times 4.2 =$  \_\_\_\_\_

14.  $4 \div 3.5 =$  \_\_\_\_\_

(Round the answer to two decimal places)

15. A red ribbon is 117 cm long. The length of a green ribbon is 3 times that of the red ribbon. The total length of the two ribbons is \_\_\_\_\_ cm.

16. Each kilogram of banana costs  $10\frac{4}{5}$  dollars. Mr Ho buys  $1\frac{1}{4}$  kilograms of banana. He should pay  dollars.

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17. There are 12 flowers in a bunch. 6 of them are roses and 3 are lilies. \_\_\_\_\_ % of all the flowers are roses and lilies.

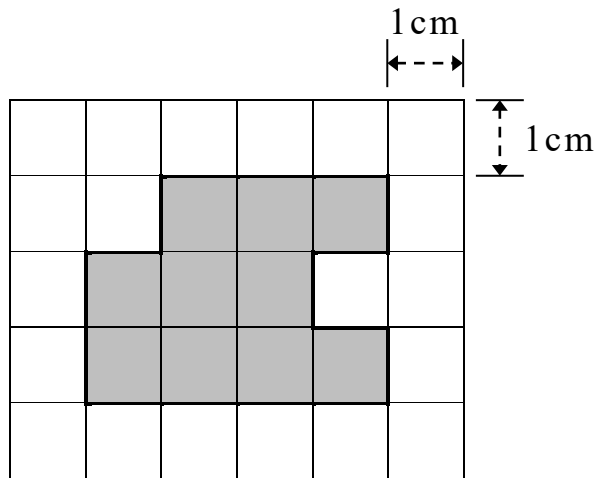
18. A shopkeeper mixes 2.75 L of black tea with 0.5 L of milk to make milk tea. Then he pours every 0.25 L of milk tea into a cup. How many cups of milk tea can he make altogether?  
(Show your working)

Please do not write in the margin.



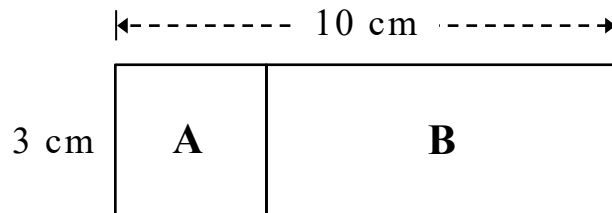
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19. In the following diagram, the side of each square is 1 cm.



The perimeter of the shaded part is \_\_\_\_\_ cm.

20.



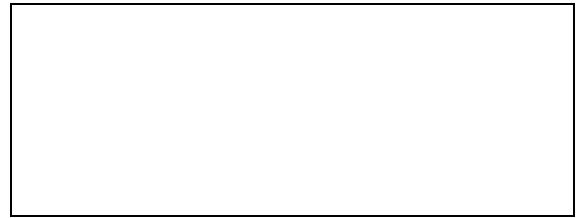
The figure above is made up of square **A** and rectangle **B**.

(a) The perimeter of square **A** is \_\_\_\_\_ cm.

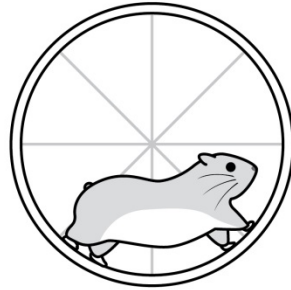
(b) The area of rectangle **B** is \_\_\_\_\_  $\text{cm}^2$ .

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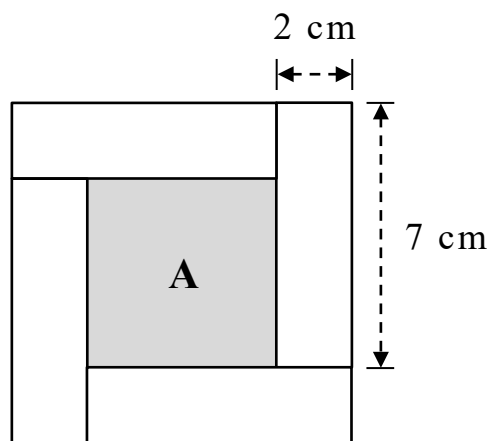
21.



The diameter of a hamster wheel is 20 cm. A hamster ran for 10 rounds in the wheel. In total it ran

\_\_\_\_\_ cm. (Take  $\pi$  as 3.14)

22.



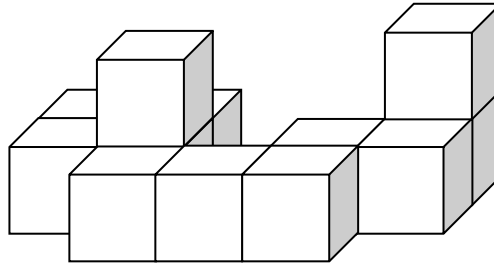
Fit square **A** and four equal rectangles together (as shown in the diagram above). The area of square **A** is

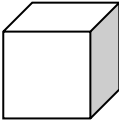
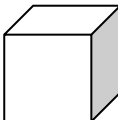
\_\_\_\_\_  $\text{cm}^2$ .

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Please do not write in the margin.

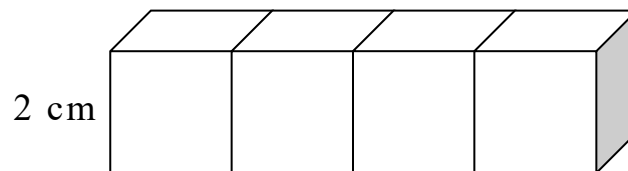
23.



The solid above is made up of  . The volume of each  is  $1 \text{ cm}^3$ .

The volume of the solid is \_\_\_\_\_ .  
(Give the answer with a unit)

24.



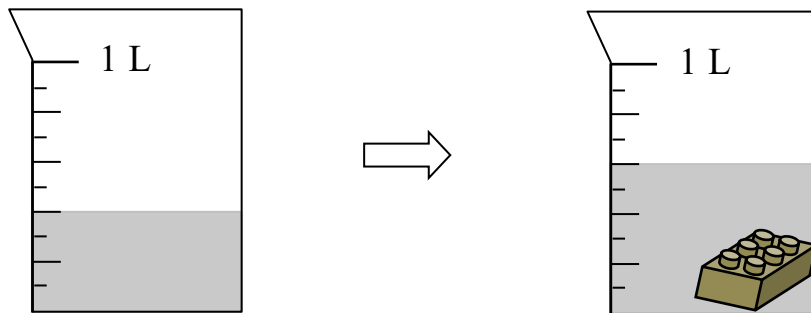
The cuboid above is made up of four cubes. The side of each cube is 2 cm. The volume of the cuboid is \_\_\_\_\_  $\text{cm}^3$ .


Please do not write in the margin.

25. Mrs Ho pours 5 L of orange juice into some glasses. The capacity of each glass is  $250 \text{ cm}^3$ . At most, how many glasses can be filled up?

- A. 2
- B. 20
- C. 50
- D. 1 250

26.



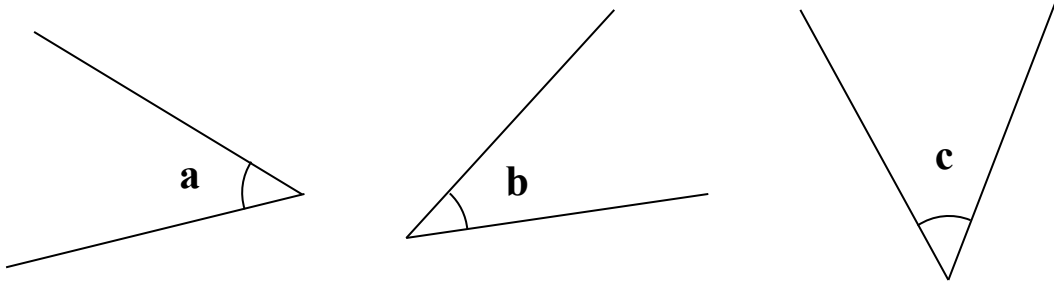
The volume of  is \_\_\_\_\_  $\text{cm}^3$ .

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Please do not write in the margin.

27. Mr Lee drove through a tunnel at an average speed of 80 kilometres per hour. It took him  $\frac{1}{10}$  hour. The tunnel is \_\_\_\_\_ kilometre(s) long.

28. Measure the following angles with a protractor. Arrange them from the smallest to the largest. Write all the letters for the answers.



Answer:  $\angle$  \_\_\_\_\_ ,  $\angle$  \_\_\_\_\_ ,  $\angle$  \_\_\_\_\_  
(Smallest) (Largest)

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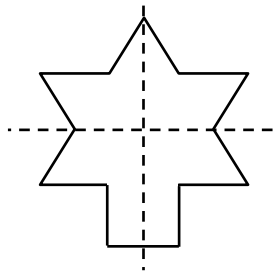


29. The table below shows the price of lunch sets in a fast food shop.

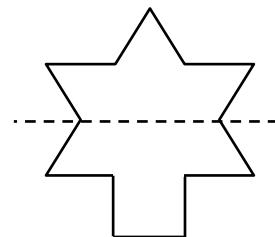
Set A	\$26.00
Set B	\$24.00
Set C	\$26.50

Mr Chan bought 1 box of lunch set A, 4 boxes of lunch set B and 2 boxes of lunch set C. On average, he should pay \$\_\_\_\_\_ for a lunch set.

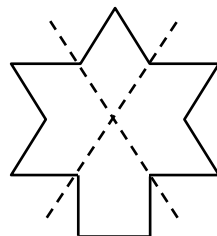
30. If all the axis/ axes of symmetry of the shape is/ are marked with dotted line(s), which of the following diagram is correct?



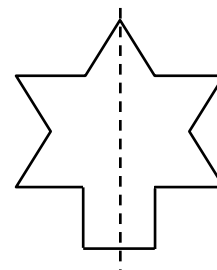
A.



B.



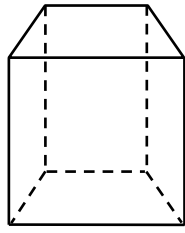
C.



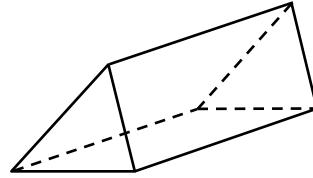
D.

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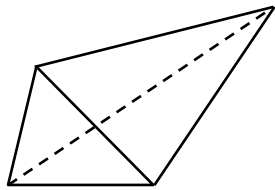
31. Which of the following 3-D shapes has 6 faces?



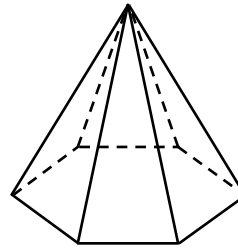
A.



B.

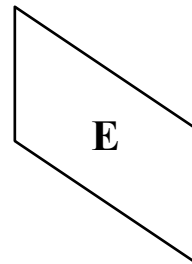
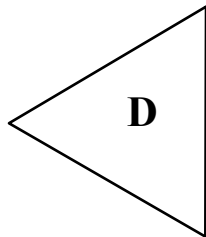
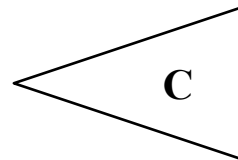
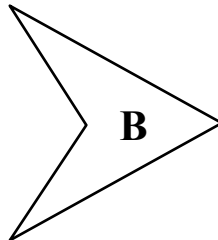
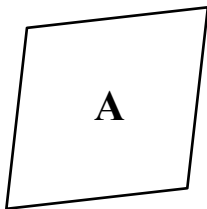


C.



D.

32. Study the 2-D shapes below. Write all the letters for the answers.

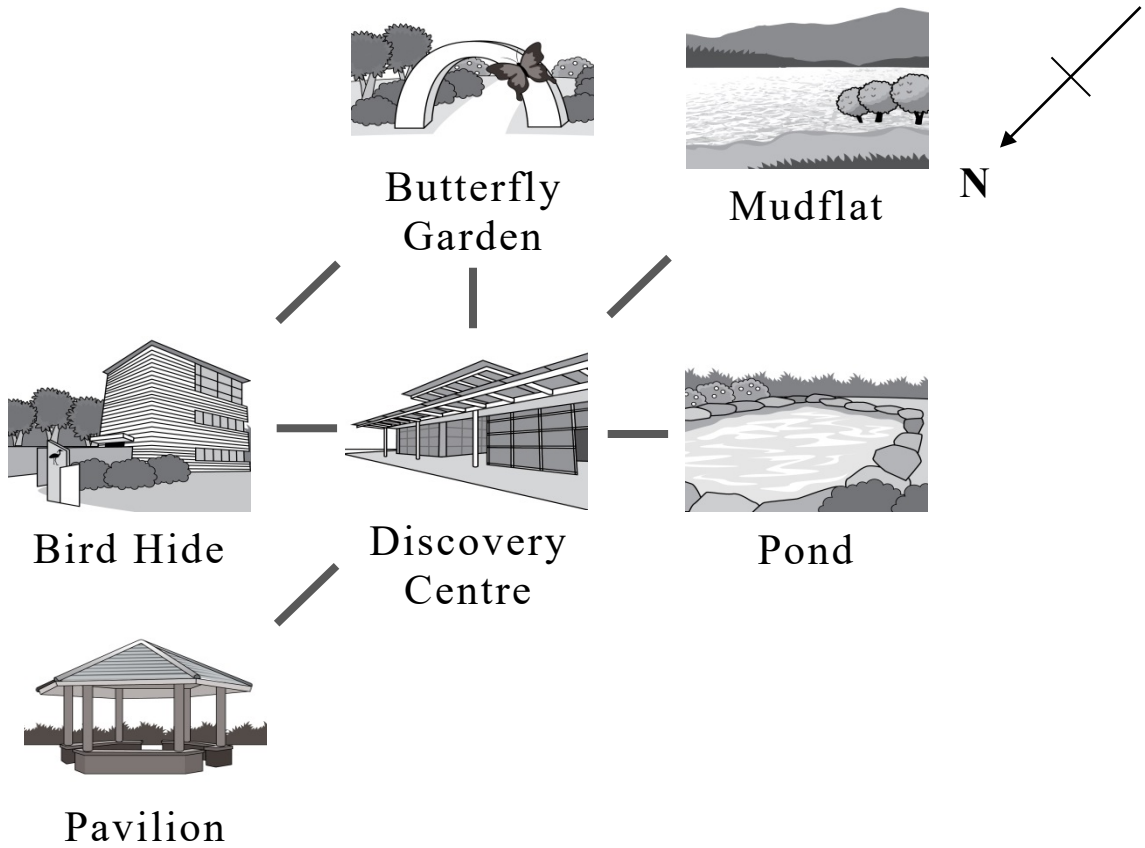


(a) Equilateral triangle: \_\_\_\_\_

(b) Rhombus: \_\_\_\_\_

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33. The map of Wetland Park is shown below.



- (a) Starting from Pond, Mr Chow goes \_\_\_\_\_  
(direction)  
to reach Discovery Centre. Then he turns north to  
reach \_\_\_\_\_ .
- (b) Butterfly Garden is to the \_\_\_\_\_ of Bird  
Hide.  
(direction)

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Please do not write in the margin.

34. Joe got 82 marks in the last Mathematics test and  $y$  marks this time. What is his average mark in these two tests?

A.  $82 + y$

B.  $\frac{y + 82}{2}$

C.  $82y$

D.  $\frac{y - 82}{2}$

35. Which of the following is an equation?

A.  $2(y + 1)$

B.  $2 + 1 = 3$

C.  $2 = 3y$

D.  $\frac{3y}{2} + 1$

36.  $\frac{k}{9} = 18$

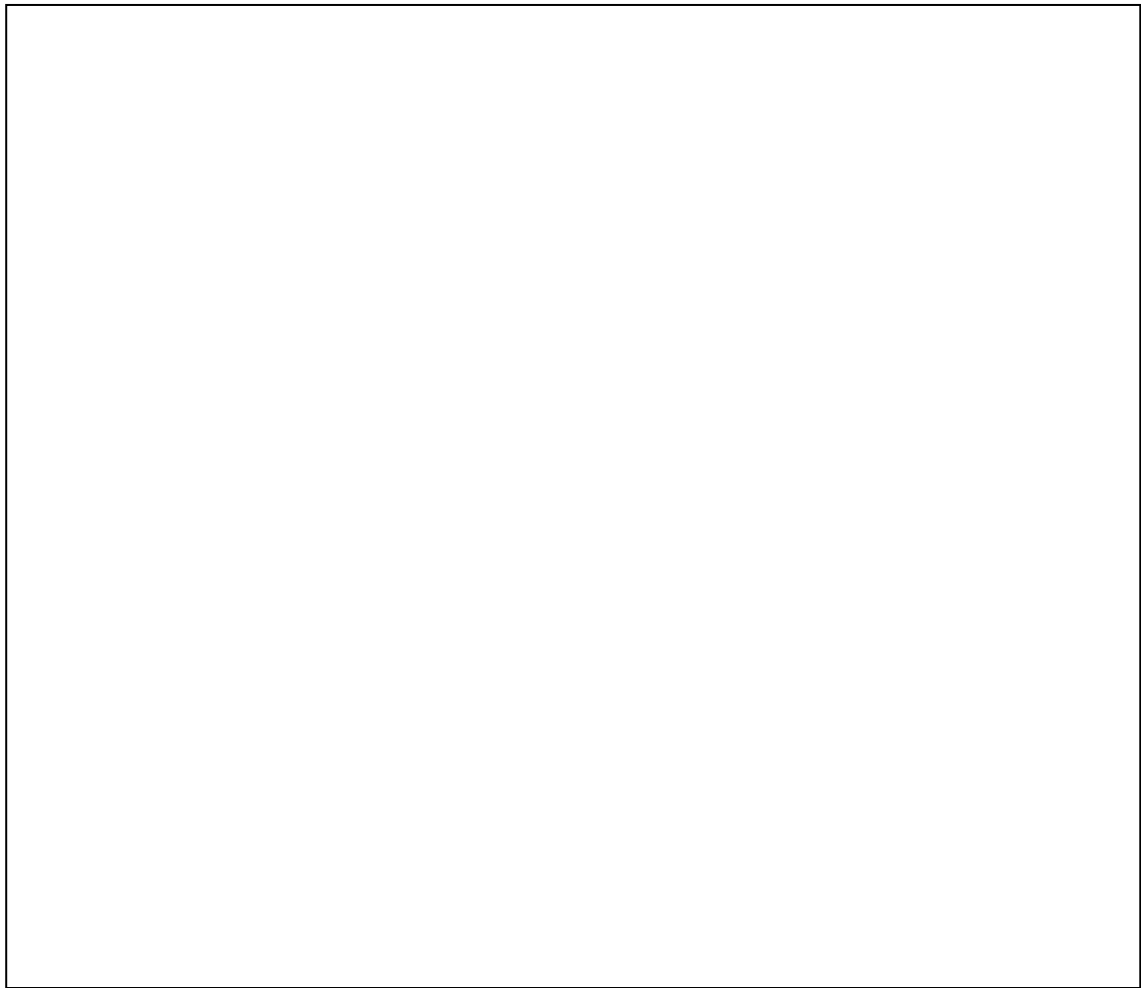
$k =$

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37. Mrs Chan bought 4 toothbrushes and 1 tube of toothpaste. She paid \$66.5 in total. The price of 1 tube of toothpaste is \$30.5. Find the price of each toothbrush by *the method of solving an equation*.

(Show your working)

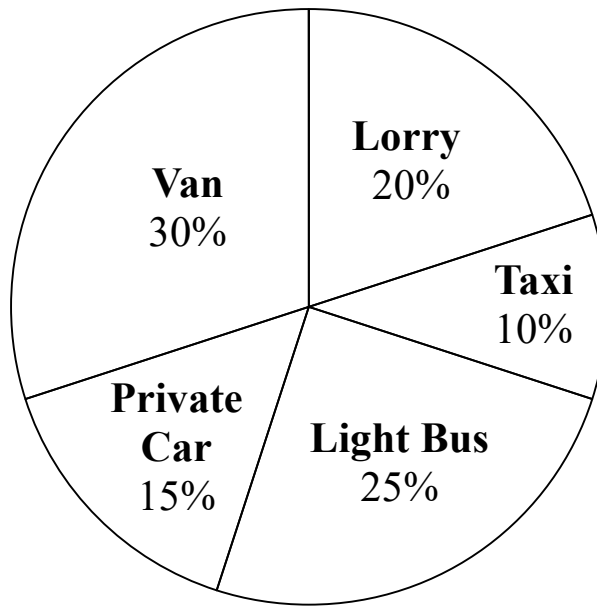


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38. There were 120 vehicles parked in Sunshine Car Park yesterday. Mr Lee did a survey on the numbers of different types of vehicles and constructed a pie chart below.

**Vehicles Parked in Sunshine Car Park Yesterday**



- (a) Among the different types of vehicles parked in the car park, the least was \_\_\_\_\_ . There were \_\_\_\_\_ vehicles only.
- (b) The number of light buses and private cars was \_\_\_\_\_ % of the total number of vehicles.

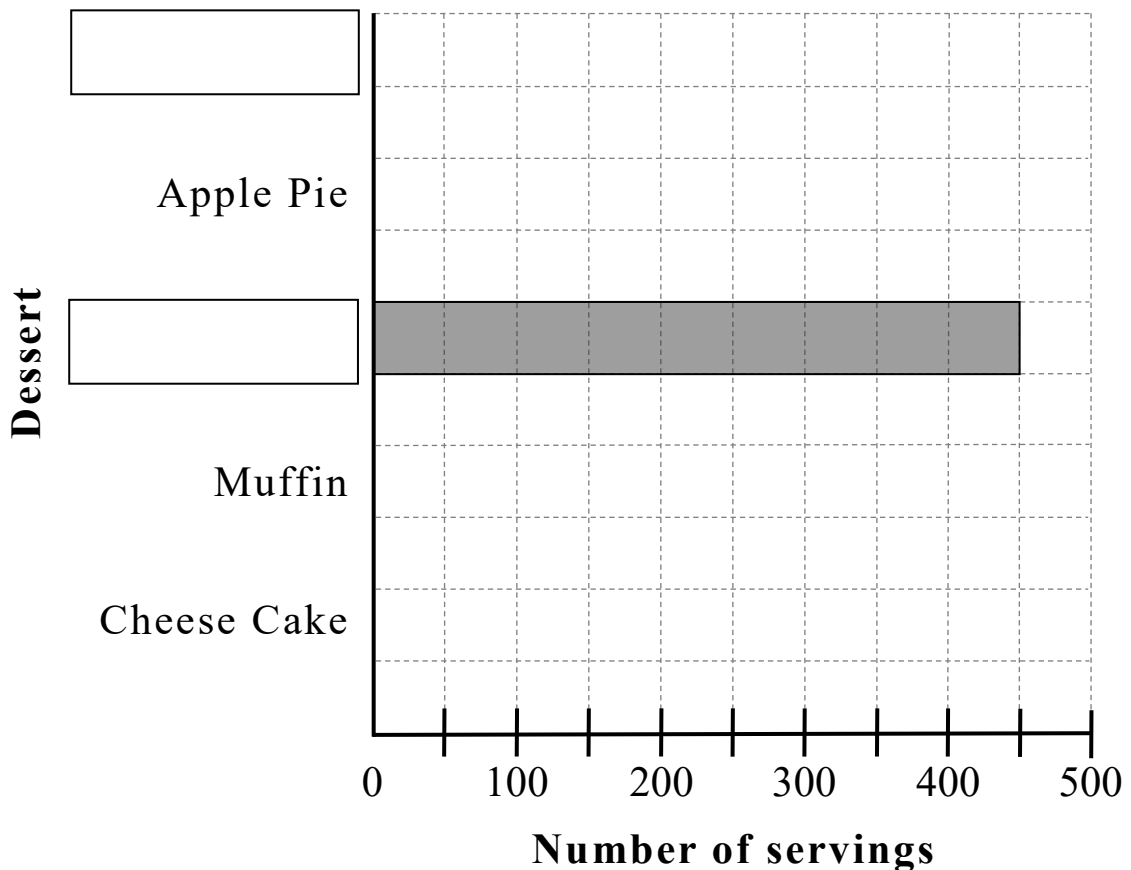
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39. The table below shows the sales of different kinds of desserts at Happy House last week.

Dessert	Pudding	Apple Pie	Ice Cream	Muffin	Cheese Cake
Number of servings	350	200	450	100	150

According to the information above, use a pencil to complete the following bar chart. Give it a title and add the names of the desserts.

(Title)



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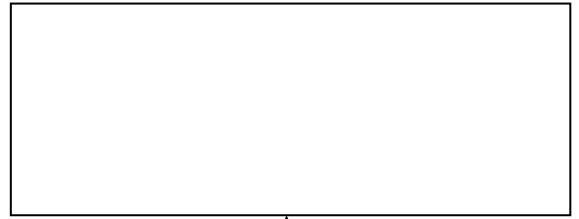
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6	M	E	3
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**Education Bureau**  
**Territory-wide System Assessment 2023**  
**Primary 6**  
**Mathematics**

**Instructions:**

1. Stick barcode labels on pages 1, 3, 5, 7 and 9 in the spaces provided.
2. There are 39 questions in this test. Answer all questions.
3. Time allowed is 50 minutes.
4. Write your answers in this Question-Answer Booklet.
5. Do not write in the margins.
6. Use of calculators is not allowed.
7. Do your rough work on the rough work sheet provided.
8. Write your School Code, Class and Class Number in the boxes below.

**Instructions for answering questions:**

- (a) Multiple choice questions – Blacken the circle next to the correct answer with an **HB pencil**.  
For example:
- A
  - B
  - C
  - D
- (b) Questions in which you are asked to “Show your working” – Write your mathematical expressions, answers and statements/conclusions in the spaces provided. There is **NO** need to show your rough work.
- (c) Other types of questions – Answer as required in the spaces provided.

School Code  
學校編號

P			
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Class  
班別

6	
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Class No.  
班號

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↑  
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Write one **capital letter** in this box

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1. Which of the following numbers has the digit '2' in its millions place?

- A. 152 699 400
- B. 28 345 010
- C. 9 724 000
- D. 271 803

2. Which of the following numbers are prime numbers?  
(Circle all the answers)

17

49

51

83

99

3. List all the factors of 16.

Answer: \_\_\_\_\_

4. List the first three common multiples of 6 and 8.

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

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5. The Highest Common Factor (H.C.F.) of 24 and 30  
is \_\_\_\_\_ .

6. (a) Convert  $\frac{31}{2}$  to a mixed number.

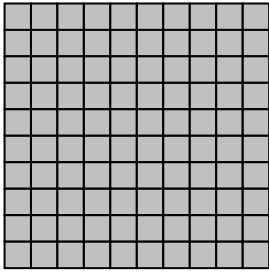
Answer:

(b) Fill in the box with a correct number.

$$\frac{35}{42} = \frac{\boxed{\phantom{000}}}{6}$$

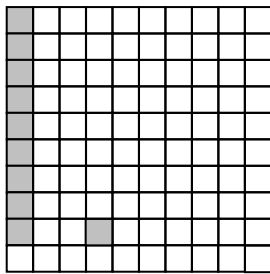
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7.



stands for 1.

Represent the shaded parts in the diagram below with a decimal.

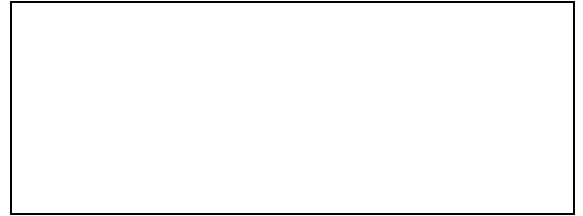


- A. 10
- B. 0.91
- C. 0.1
- D. 0.01

8. Convert  $\frac{6}{11}$  to a decimal correct to two decimal places.

Answer: \_\_\_\_\_

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9. Arrange the following numbers from the largest to the smallest.

3.0403 , 104 , 3.04

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
(Largest) (Smallest)

10. (a) Convert 36% to a fraction in lowest terms.

Answer:

- (b) Convert 0.125 to a percentage.

Answer: \_\_\_\_\_ %

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11.  $70 + 735 \div 7 =$

- A. 175
- B. 115
- C. 105
- D. 85

12.  $2\frac{5}{8} - \left(\frac{7}{8} + \frac{3}{8}\right) =$

13.  $8\frac{1}{10} \div 1\frac{4}{5} =$

14.  $0.62 + (3.58 - 1.4) =$  \_\_\_\_\_

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15.  $2.6 \div 0.8 =$  \_\_\_\_\_

16. The total weight of 3 bags of flour of the same weight is

$2\frac{7}{10}$  kg. Each bag of flour weighs  kg.

17. Each sandwich has 13.5 grams of ham. Altogether  
4 sandwiches have \_\_\_\_\_ grams of ham.

18. There are 12 flowers in a bunch. 6 of them are roses and  
3 are lilies. \_\_\_\_\_ % of all the flowers are roses  
and lilies.

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19. Mandy folds 114 paper stars. She keeps 18 of them for herself. Then she shares the remaining paper stars equally among 12 friends. How many paper stars does each friend get?

(Show your working)

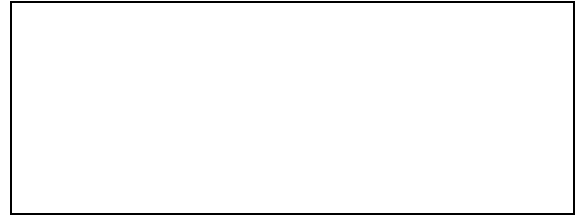


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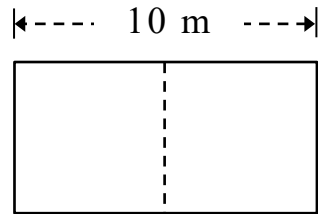
20. Winnie started stargazing at 20:45 and finished after 1 hour and 30 minutes. In '24-hour time', the finishing time was \_\_\_\_\_ : \_\_\_\_\_ .



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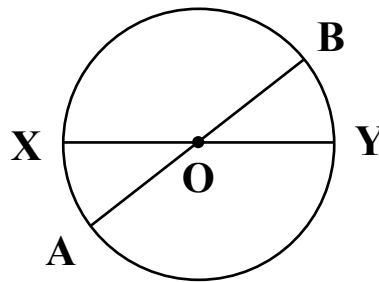


21.



The rectangle above can be divided into two equal squares. The perimeter of the rectangle is \_\_\_\_\_ m.

22. In the figure below, **AB** and **XY** are the longest line segments in the circle.



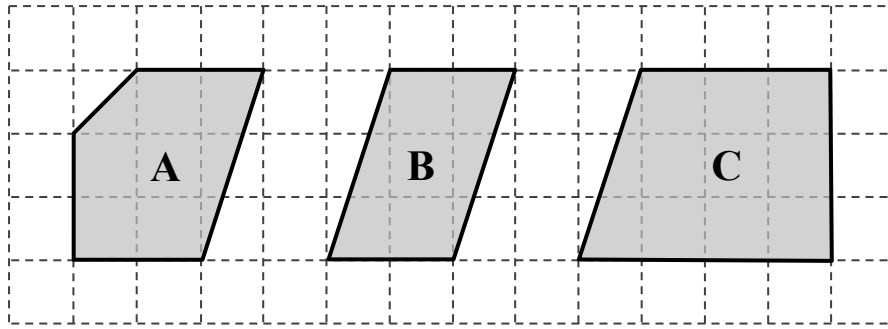
(a) The line **OY** is \* the centre / a diameter / a radius of the circle. (\*Circle the answer)

(b) The circumference is 44 cm. **XY** is \_\_\_\_\_ cm long. (Take  $\pi$  as  $\frac{22}{7}$ )

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23.



Compare the areas of the 2-D shapes **A**, **B** and **C** above.

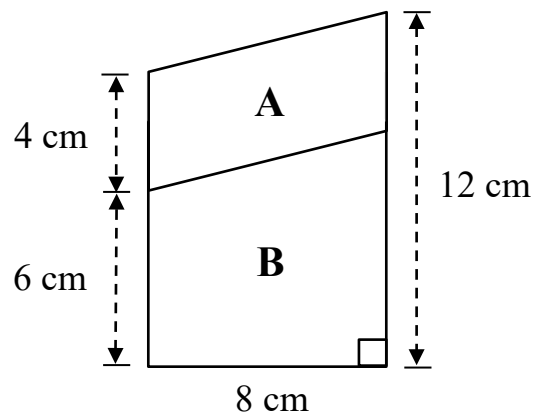
Arrange them from the largest to the smallest. Write all the letters for the answers.

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
(Largest) (Smallest)

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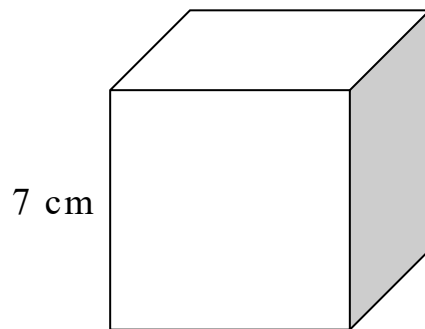
24.



The figure above is made up of parallelogram **A** and trapezium **B**.

- (a) The area of parallelogram **A** is \_\_\_\_\_  $\text{cm}^2$ .
- (b) The area of trapezium **B** is \_\_\_\_\_  $\text{cm}^2$ .

25.

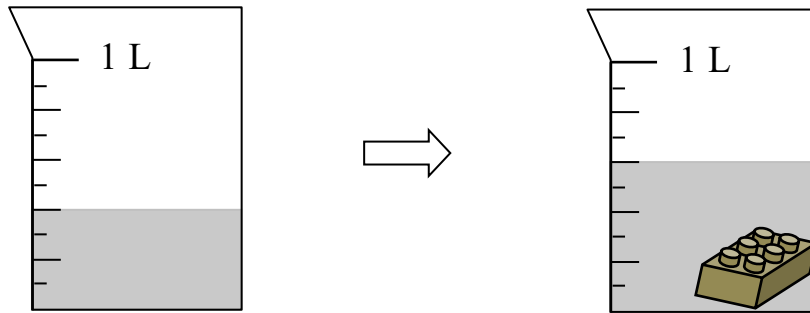



The volume of the cube above is \_\_\_\_\_  $\text{cm}^3$ .

26. Mrs Ho pours 5 L of orange juice into some glasses. The capacity of each glass is  $250 \text{ cm}^3$ . At most, how many glasses can be filled up?

- A. 2
- B. 20
- C. 50
- D. 1 250

27.



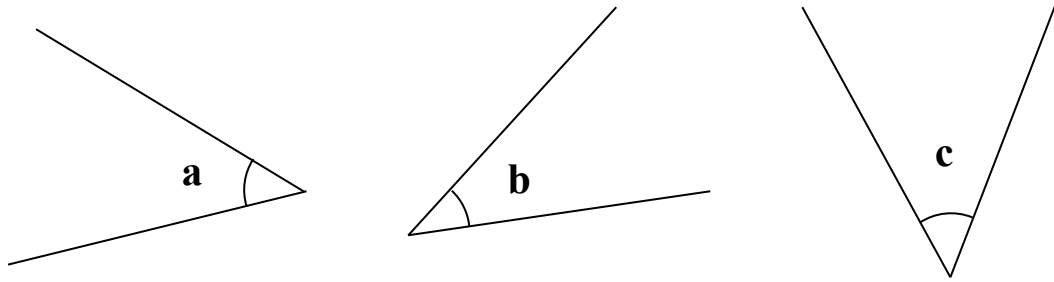
The volume of  is \_\_\_\_\_  $\text{cm}^3$ .

28. Jacky is a primary pupil. His average cycling speed is

- A. 2 hours.
- B. 1 500 metres.
- C. 200 metres per second.
- D. 8 kilometres per hour.

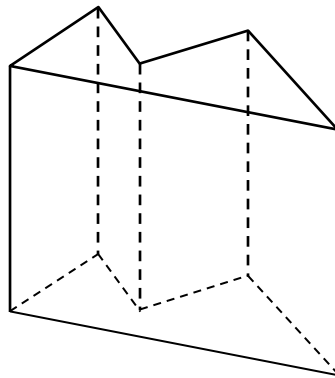
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29. Measure the following angles with a protractor. Arrange them from the smallest to the largest. Write all the letters for the answers.



Answer:  $\angle$  \_\_\_\_\_ ,  $\angle$  \_\_\_\_\_ ,  $\angle$  \_\_\_\_\_  
(Smallest) (Largest)

30.



The figure above is a \* prism / pyramid .

(\*Circle the answer)

It has \_\_\_\_\_ vertices.

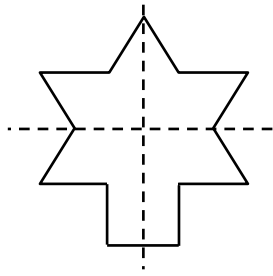
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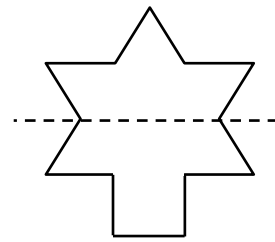
31. Which of the following 2-D shapes must have four sides equal in length and four right angles?

- A. Rectangle
- B. Rhombus
- C. Trapezium
- D. Square

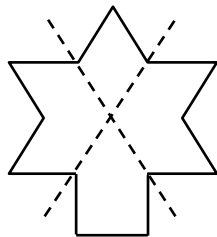
32. If all the axis/ axes of symmetry of the shape is/ are marked with dotted line(s), which of the following diagram is correct?



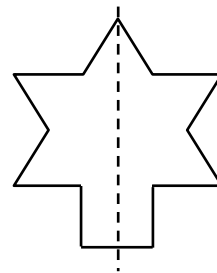
A.



B.



C.

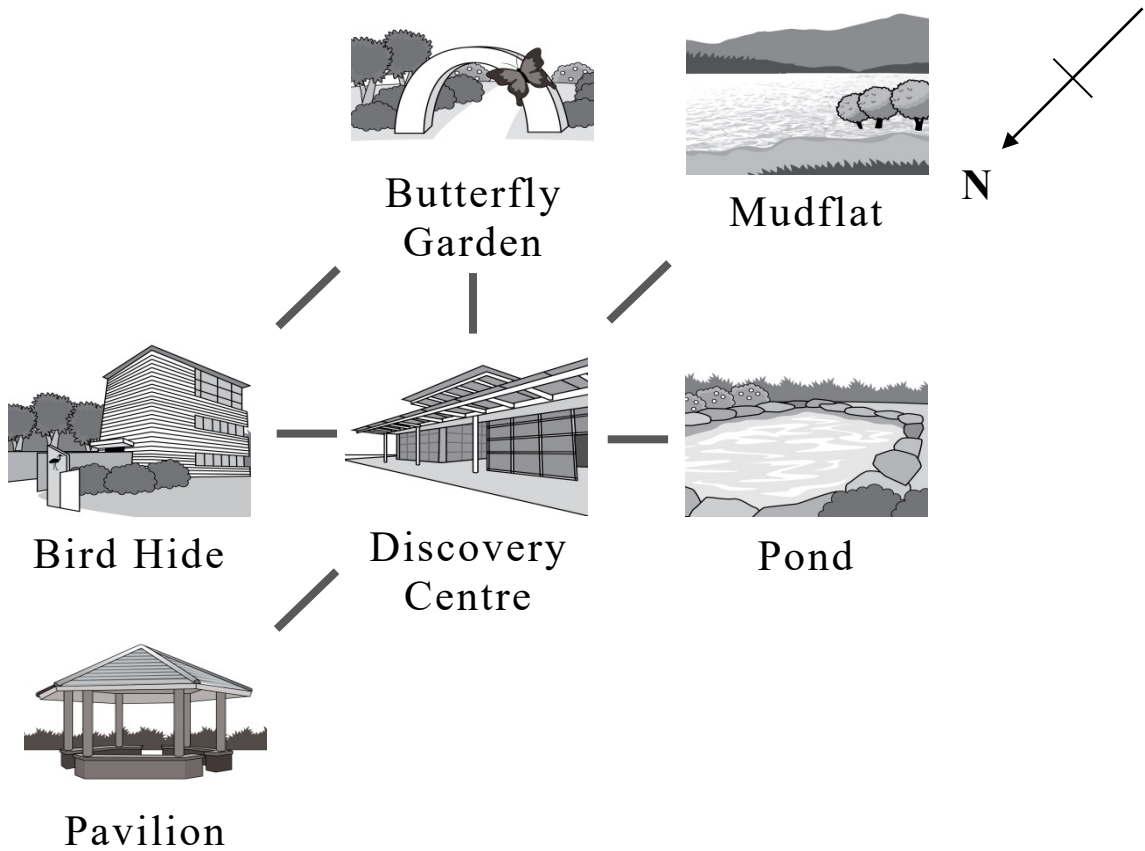


D.

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33. The map of Wetland Park is shown below.



Please do not write in the margin.

- (a) Starting from Pond, Mr Chow goes \_\_\_\_\_  
(direction)  
to reach Discovery Centre. Then he turns north to  
reach \_\_\_\_\_ .
- (b) Butterfly Garden is to the \_\_\_\_\_ of Bird  
(direction)  
Hide.

34. The table below shows the price of lunch sets in a fast food shop.

Set A	\$26.00
Set B	\$24.00
Set C	\$26.50

Mr Chan bought 1 box of lunch set A, 4 boxes of lunch set B and 2 boxes of lunch set C. On average, he should pay \$\_\_\_\_\_ for a lunch set.

35. Each movie ticket costs 110 dollars. Vivian wants to buy  $G$  movie tickets, but she still needs 40 dollars more. How many dollars does Vivian have?

- A.  $110G + 40$
- B.  $110G - 40$
- C.  $110 + G + 40$
- D.  $110 + G - 40$

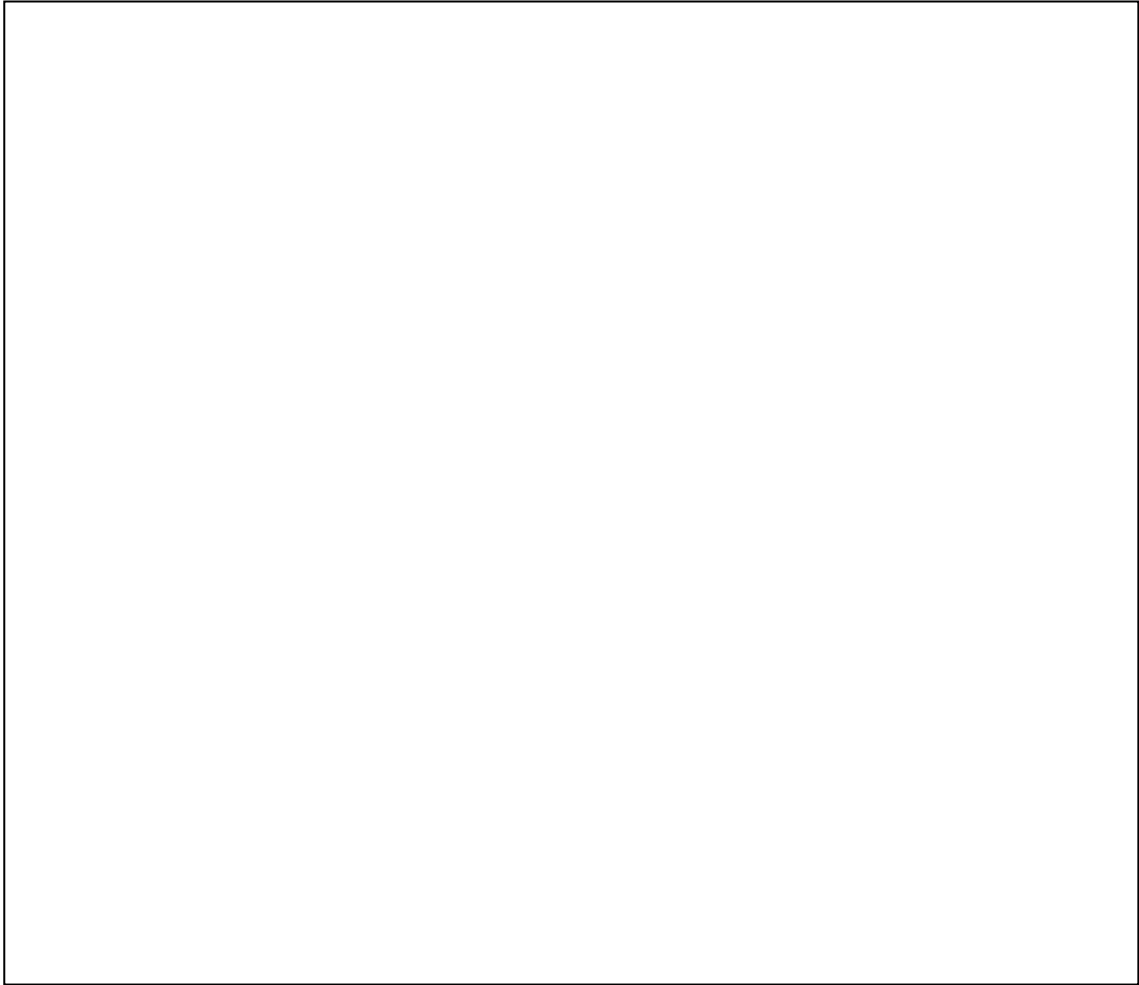
36.  $6.3 = 3w$

$w =$



Please do not write in the margin.

37. Mrs Chan bought 4 toothbrushes and 1 tube of toothpaste. She paid \$66.5 in total. The price of 1 tube of toothpaste is \$30.5. Find the price of each toothbrush by *the method of solving an equation*.  
(Show your working)

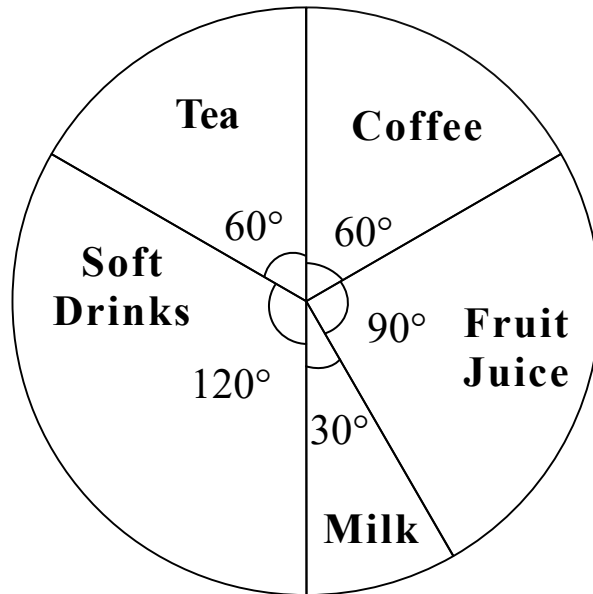


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38. There were 60 bottled drinks on the supermarket shelves. The shopkeeper did a survey on the numbers of different types of drinks on the shelves and constructed the pie chart below.

**Drinks on the Shelves**



- (a) The number of \_\_\_\_\_ was the largest.  
There were \_\_\_\_\_ bottles.
- (b) What fraction of the number of bottles of fruit juice was the number of bottles of tea?

Answer: The number of bottles of tea was

of that of fruit juice.

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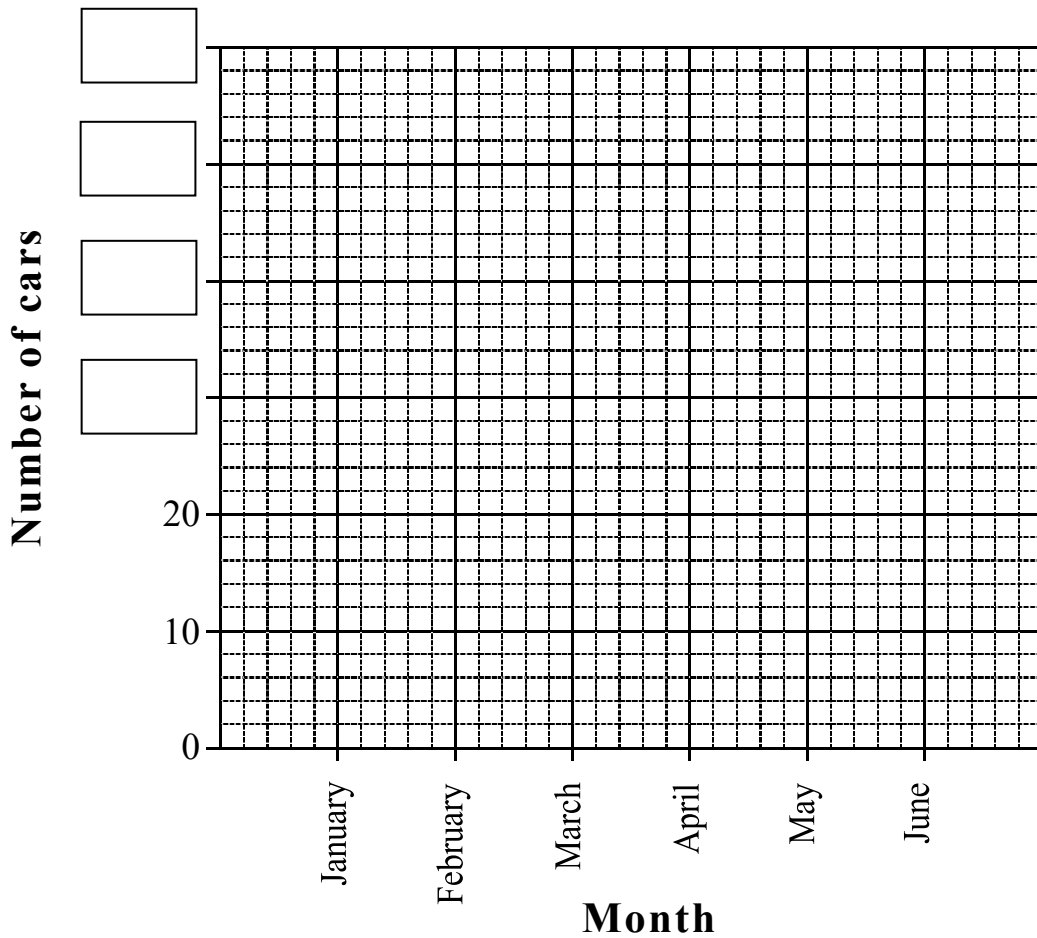
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39. The table below shows the number of cars sold by City Company in the last six months.

Month	January	February	March	April	May	June
Number of cars	30	54	40	46	42	20

According to the information above, use a pencil to complete the following broken line graph. Give it a title and add the scales.

(Title)



— END OF PAPER —

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\* 6 M E 4 \*

6	M	E	4
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# Education Bureau

## Territory-wide System Assessment 2023

### Primary 6

### Mathematics

#### Instructions:

1. Stick barcode labels on pages 1, 3, 5, 7 and 9 in the spaces provided.
2. There are 39 questions in this test. Answer all questions.
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6. Use of calculators is not allowed.
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8. Write your School Code, Class and Class Number in the boxes below.

#### Instructions for answering questions:

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For example:
- A
  - B
  - C
  - D
- (b) Questions in which you are asked to “Show your working” – Write your mathematical expressions, answers and statements/conclusions in the spaces provided. There is **NO** need to show your rough work.
- (c) Other types of questions – Answer as required in the spaces provided.

School Code  
學校編號

<b>P</b>			
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Class  
班別

<b>6</b>	
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Class No.  
班號

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Write one **capital letter** in this box

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1. Arrange the following numbers from the smallest to the largest.

518 400 , 3 127 000 , 395 600

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
(Smallest) (Largest)

2. Which of the following numbers is a factor of 81?

- A. 7
- B. 19
- C. 27
- D. 162

3. List the first three common multiples of 6 and 8.

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

4. The Highest Common Factor (H.C.F.) of 24 and 30

is \_\_\_\_\_ .

Please do not write in the margin.

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5. (a) Convert  $4\frac{3}{8}$  to an improper fraction.

Answer:

- (b) Fill in the box with a correct number.

$$\frac{16}{30} = \frac{48}{\boxed{\phantom{000}}}$$

6. In the number 3.951, what is the value of the digit '9'?

- A. 900
- B.  $\frac{9}{1000}$
- C.  $\frac{9}{100}$
- D.  $\frac{9}{10}$

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7. Convert  $\frac{6}{11}$  to a decimal correct to two decimal places.

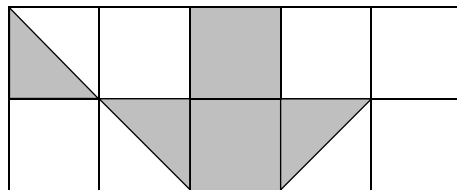
Answer: \_\_\_\_\_

8. Arrange the following numbers from the largest to the smallest.

3.0403 , 104 , 3.04

Answer: \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_  
(Largest) (Smallest)

9. What percentage of the whole figure below is shaded?



Answer: \_\_\_\_\_ % of the whole figure is shaded.



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10. (a) Convert 36% to a fraction in lowest terms.

Answer:

(b) Convert 0.125 to a percentage.

Answer: \_\_\_\_\_ %

11.  $70 + 735 \div 7 =$

- A. 175
- B. 115
- C. 105
- D. 85

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12.  $\frac{5}{6} \div 8 \times \frac{4}{5} =$

13.  $8 \div \left( \frac{6}{7} + 1\frac{3}{7} \right) =$

14.  $2.6 \div 0.8 =$  \_\_\_\_\_

15.  $1.25 + 0.7 \times 9 =$  \_\_\_\_\_

16. A juice store has 5 litres of orange juice originally. After selling  $4\frac{1}{2}$  litres,  $1\frac{3}{4}$  litres more orange juice is made.

Now the juice store has  litre(s) of orange juice.

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17. Aaron paid 165 dollars for half a dozen cakes.

On average, each cake costs \_\_\_\_\_ dollars.

(Give the answer in decimals)

18. Joey shared 794 paper cranes equally among 51 patients.

Which of the following expressions is most suitable for estimating the number of paper cranes each patient got?

- A.  $700 \div 50$
- B.  $700 \div 60$
- C.  $800 \div 50$
- D.  $800 \div 60$

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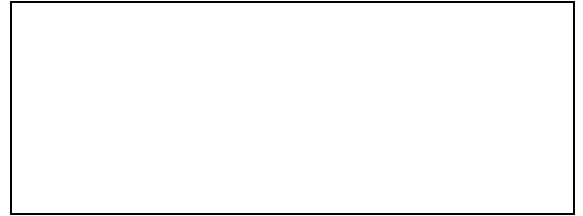
19. Tony has 780 dollars of pocket money. He spends  $\frac{5}{6}$  of it and saves the rest. How many dollars does Tony save?  
(Show your working)



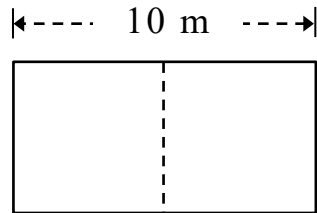
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20. Winnie started stargazing at 20:45 and finished after 1 hour and 30 minutes. In '24-hour time', the finishing time was \_\_\_\_\_ : \_\_\_\_\_ .

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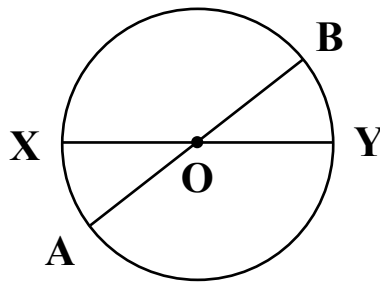


21.



The rectangle above can be divided into two equal squares. The perimeter of the rectangle is \_\_\_\_\_ m.

22. In the figure below, **AB** and **XY** are the longest line segments in the circle.

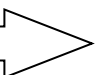


(a) The line **OY** is \* the centre / a diameter / a radius of the circle. (\*Circle the answer)

(b) The circumference is 44 cm. **XY** is \_\_\_\_\_ cm long. (Take  $\pi$  as  $\frac{22}{7}$ )

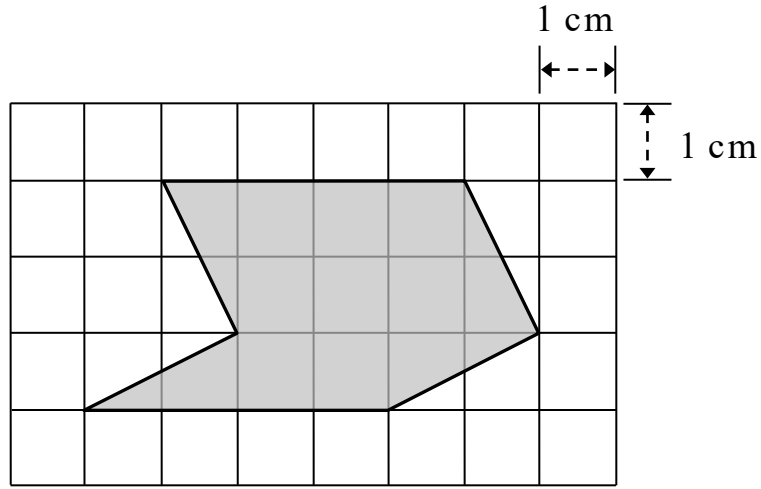
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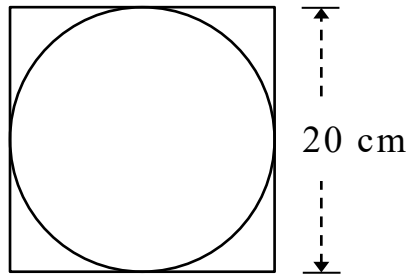
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23. In the following diagram, the side of each square is 1 cm.



The area of the shaded part is \_\_\_\_\_  $\text{cm}^2$ .

24.



Harry draws the largest circle in the square (as shown in the diagram above). The area of the circle is

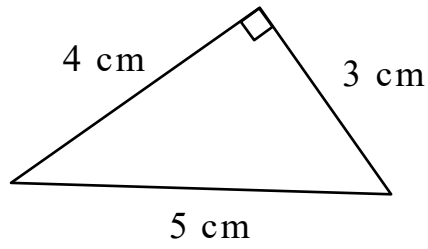
\_\_\_\_\_  $\text{cm}^2$ .

(Take  $\pi$  as 3.14)

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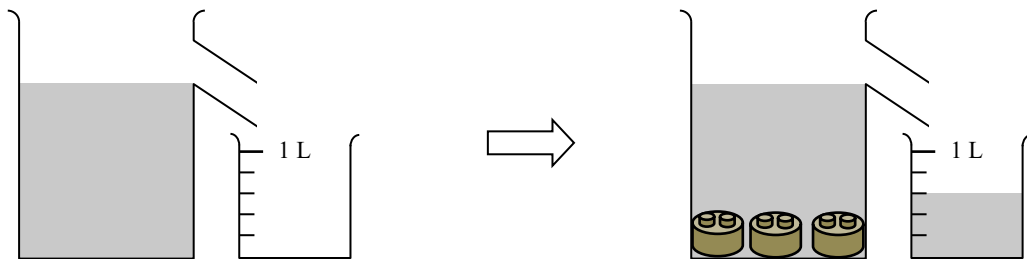
25.



What is the area of the triangle above?

- A.  $6 \text{ cm}^2$
- B.  $7.5 \text{ cm}^2$
- C.  $10 \text{ cm}^2$
- D.  $12 \text{ cm}^2$

26.



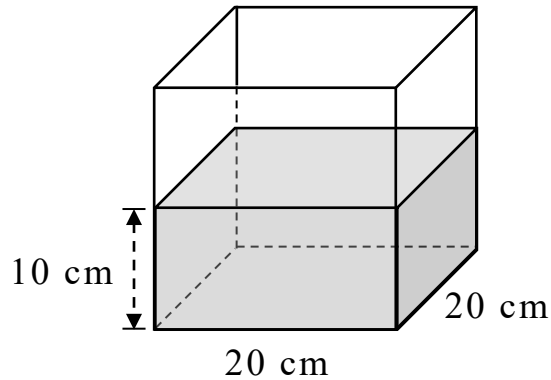
The volume of each  is \_\_\_\_\_  $\text{cm}^3$ .

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27. (a) The side of a cubic container is 20 cm. What is its capacity?

- A. 400 mL
- B. 8 L
- C. 80 L
- D. 8 000 L

(b)



Ken pours water into the container until the depth of the water is 10 cm (as shown in the diagram above).

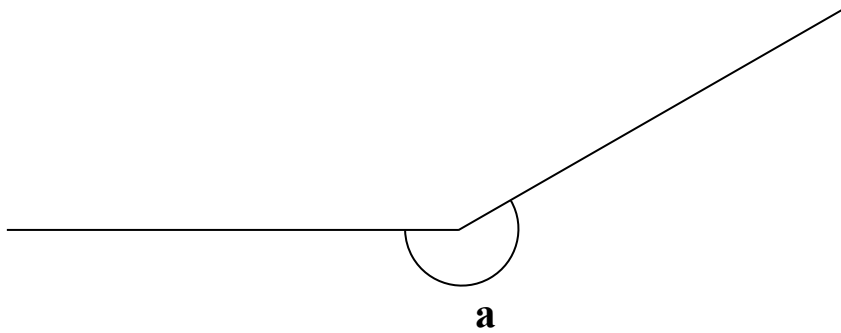
The volume of the water is \_\_\_\_\_  $\text{cm}^3$ .

28. An ant took 20 seconds to crawl 2 metres. Its average crawling speed was \_\_\_\_\_ metres per second.



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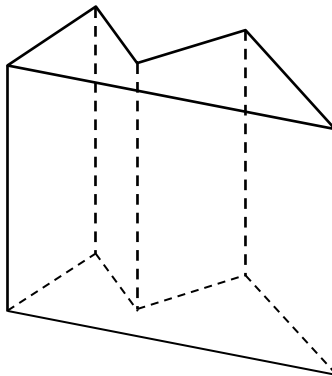
29. Measure  $\angle a$  below with a protractor.



$\angle a =$  \_\_\_\_\_

(Give the answer with a unit)

30.



The figure above is a \* prism / pyramid .

(\*Circle the answer)

It has \_\_\_\_\_ vertices.

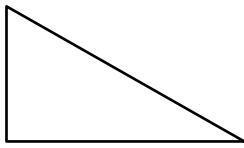
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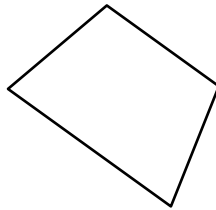
31. Which of the following 2-D shapes must have four sides equal in length and four right angles?

- A. Rectangle
- B. Rhombus
- C. Trapezium
- D. Square

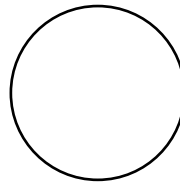
32. Study the 2-D shapes below. Write all the letter(s) for the answer.



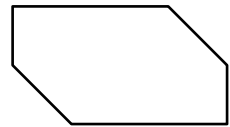
A



B



C



D

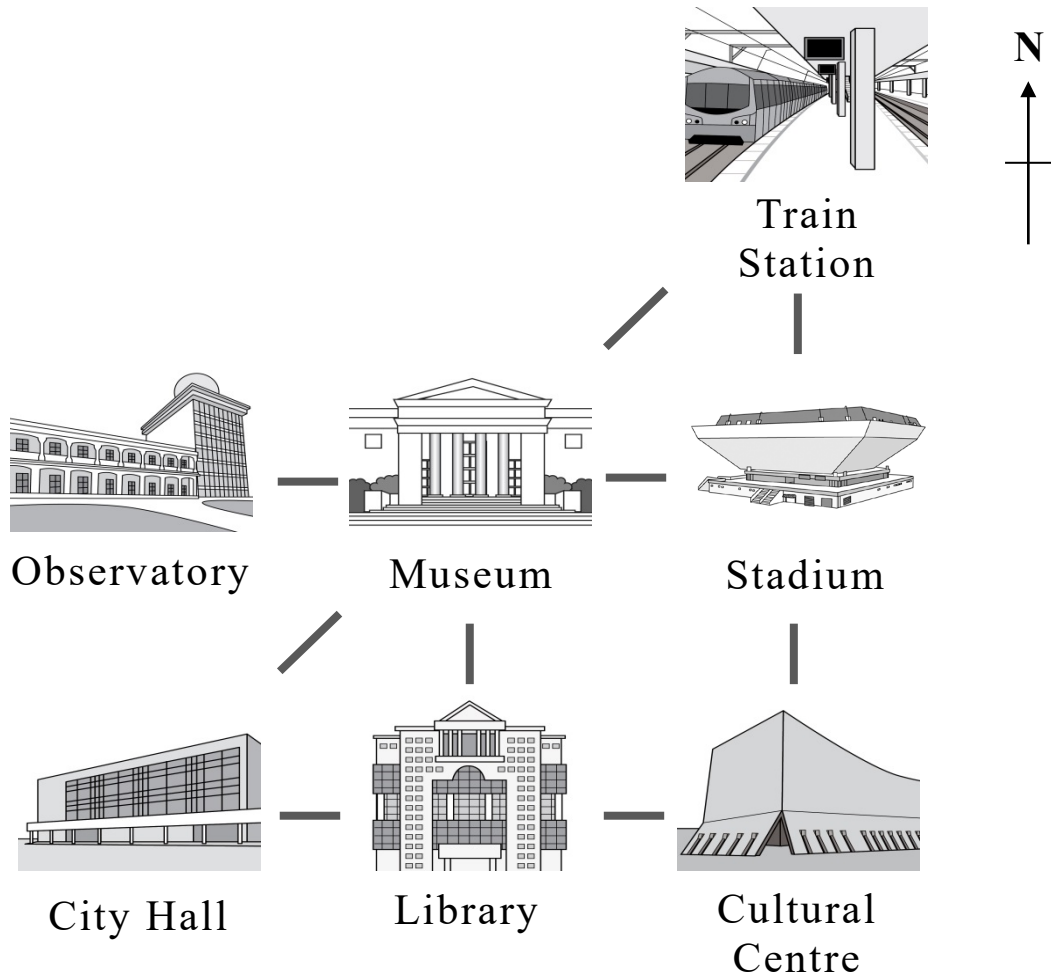
List the axially symmetric shape(s).

Answer: \_\_\_\_\_

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33. The location map of the facilities in a city is shown below.



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(a) Starting from Train Station, Katy goes

\_\_\_\_\_ to reach City Hall.

(direction)

(b) To the south of Museum is \_\_\_\_\_ .

(c) \_\_\_\_\_ is to the west of Stadium  
and to the north-east of City Hall.

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34. Find the average of the five numbers below.

8.9 , 43.6 , 24.5 , 31.1 , 12.4

Answer: The average is \_\_\_\_\_ .

35. Each movie ticket costs 110 dollars. Vivian wants to buy  $G$  movie tickets, but she still needs 40 dollars more. How many dollars does Vivian have?

- A.  $110G + 40$
- B.  $110G - 40$
- C.  $110 + G + 40$
- D.  $110 + G - 40$

36.  $6.3 = 3w$

$w =$

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37. A number is divided by 4 and then minus 9. The result is 3. Find the number by *the method of solving an equation*.

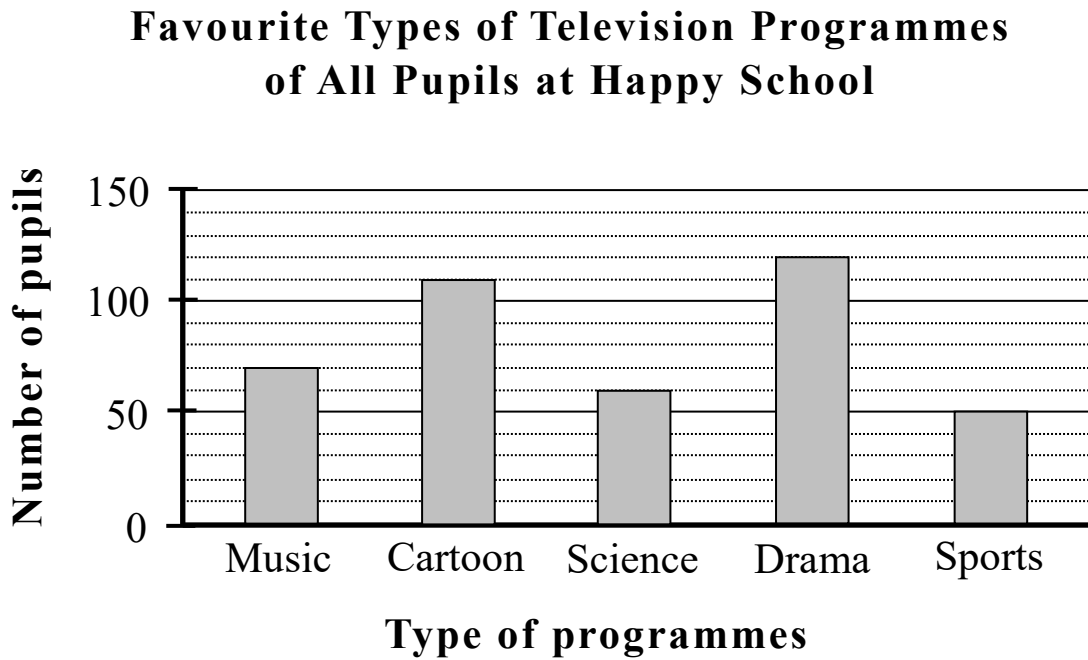
(Show your working)



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38. Mr Chan did a survey on the favourite types of television programmes of all pupils at Happy School. He drew the following bar chart according to the data.



- (a) The number of pupils who favoured the \_\_\_\_\_ programmes was the largest. There were \_\_\_\_\_ pupils.
- (b) The total number of pupils who took part in this survey was \_\_\_\_\_ .

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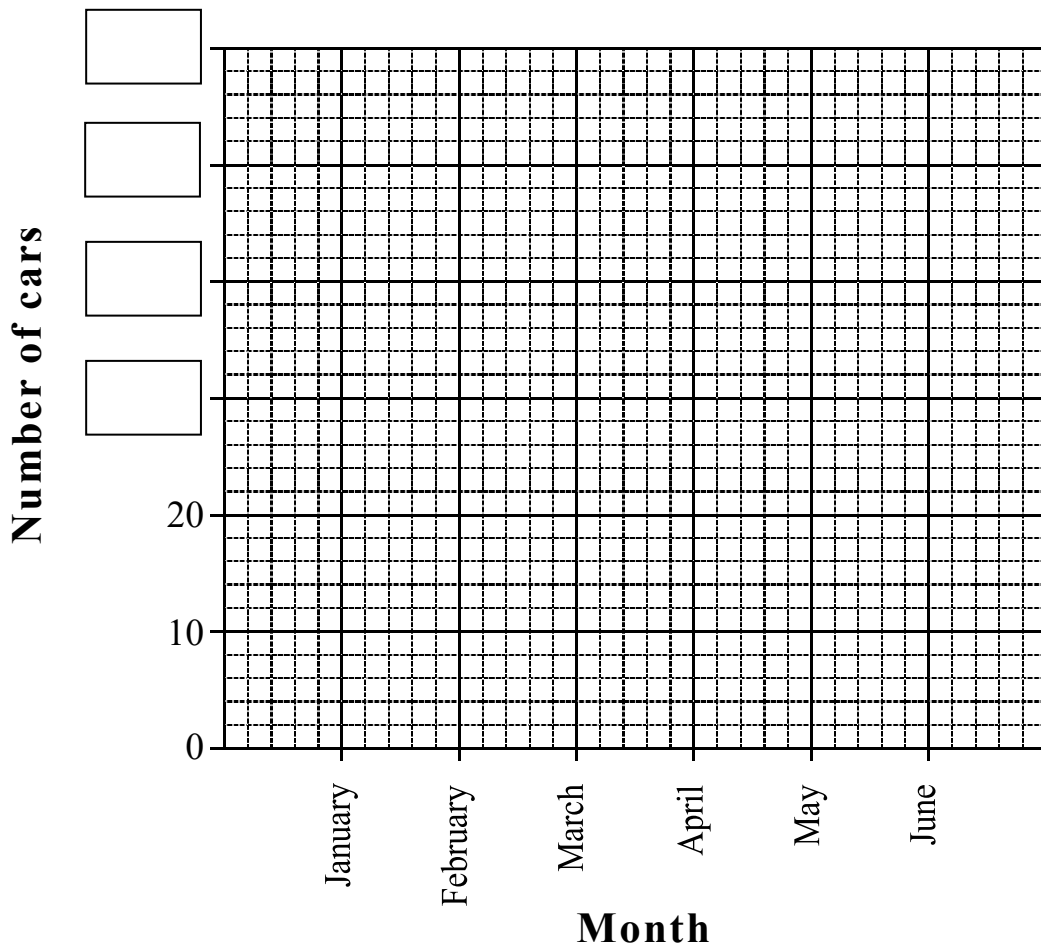
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39. The table below shows the number of cars sold by City Company in the last six months.

Month	January	February	March	April	May	June
Number of cars	30	54	40	46	42	20

According to the information above, use a pencil to complete the following broken line graph. Give it a title and add the scales.

(Title)



— END OF PAPER —

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