

SECTION A (30 MARKS)
ANSWER ALL QUESTIONS

Question 1

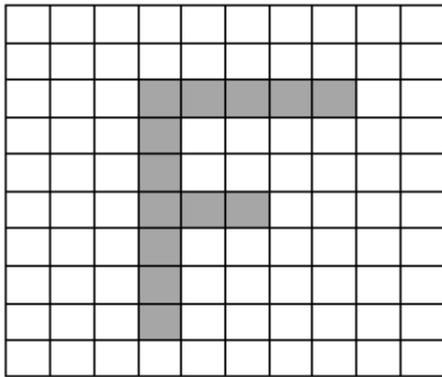
[30]

Direction: For multiple choice questions, there are four alternatives: A, B, C and D. Choose the correct alternative and circle it. DO not circle more than ONE alternative. If there is more than ONE choice circled, NO score will be awarded.

- i. Which digit is in the thousandths place in 8423.675?
- A 5
 - B 6
 - C 7
 - D 8
- ii. Which one of the following number has only **TWO** factors?
- A odd number
 - B even number
 - C prime number
 - D composite number
- iii. Choni scored $\frac{7}{10}$ in a mathematics test. Which type of fraction below describes her marks?
- A mixed fraction
 - B proper fraction
 - C improper fraction
 - D equivalent fraction
- iv. A farmer packed oranges in boxes. Each box weighs 105.03 Kilograms. What will be the weight of 6 such boxes?
- A 141.03 kg
 - B 600.08 kg
 - C 630.00 kg
 - D 630.18 kg

- v. Seldon is packing gift bags for her birthday. She puts 5 chocolates, 2 pencils, 3 toys and 1 juice in each bag. What is the ratio of chocolates to toys?
- A 3 : 5
 B 5 : 1
 C 5 : 2
 D 5 : 3

- vi. What percent of the grid is shaded?



- A 10 %
 B 13%
 C 14%
 D 87%
- vii. How many planes of symmetry are there in the shape given below?



- A 1
 B 2
 C 3
 D 4

viii. Look at the pattern below and answer the question that follows.

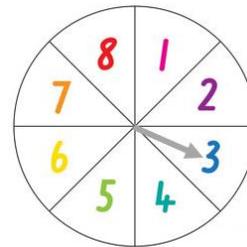


What will be the number of stars in figure 5?

- A 12
- B 17
- C 24
- D 25

ix. Samchen went to a fair and played the spinner to try her luck. She chose 2, 4, 6 and 8. What is the theoretical probability of the arrow landing on the numbers she has chosen?

- A $\frac{2}{8}$
- B $\frac{6}{8}$
- C $\frac{4}{8}$
- D $\frac{3}{8}$

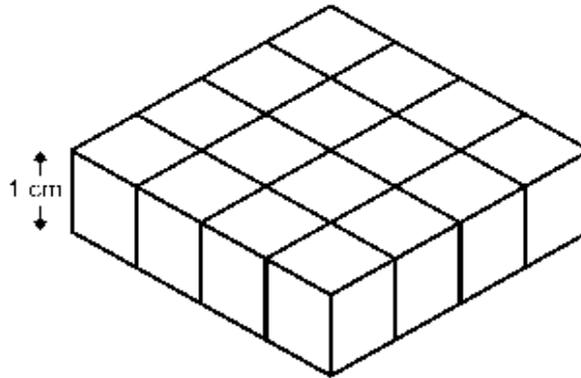


x. Tashi plans to carpet the floor in his rectangular sitting room. Which of the following measurement will he use to find the area of the floor?

- A length + width
- B length x width
- C $\frac{1}{2}$ x base x height
- D length x width x height

xi. A student created a shape using linking cubes as given below. What is the volume of the shape?

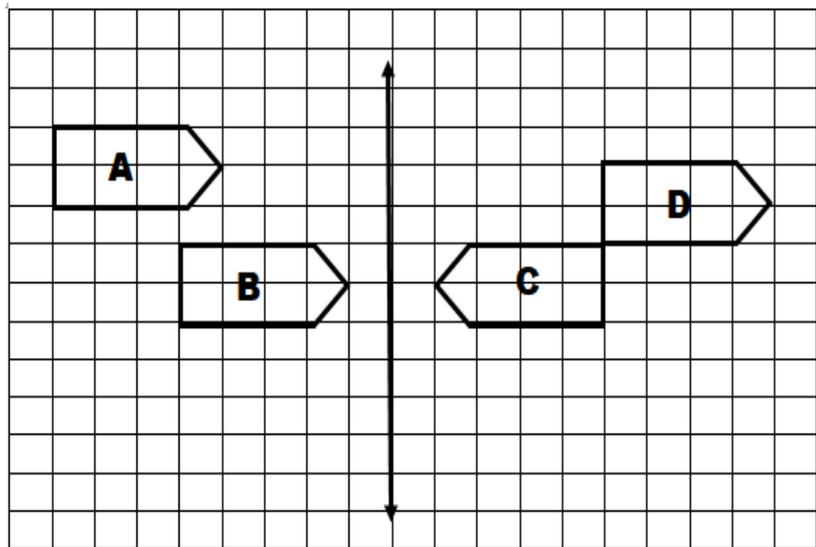
- A 16 cm^3
- B 16 cm^2
- C 24 cm^2
- D 48 cm^3



xii. Wangmo wants to buy 5 kg of pineapples. If each pineapple weighs 500 g, how many pineapples does she need to buy?

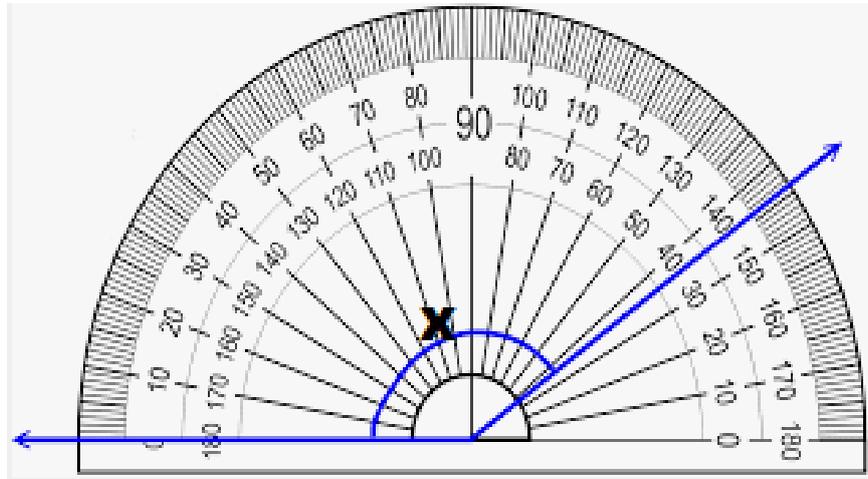
- A 2
- B 10
- C 15
- D 100

xiii. Karma moved the shape from **A** through **D** as shown below. Which of the following combined transformations did she use?

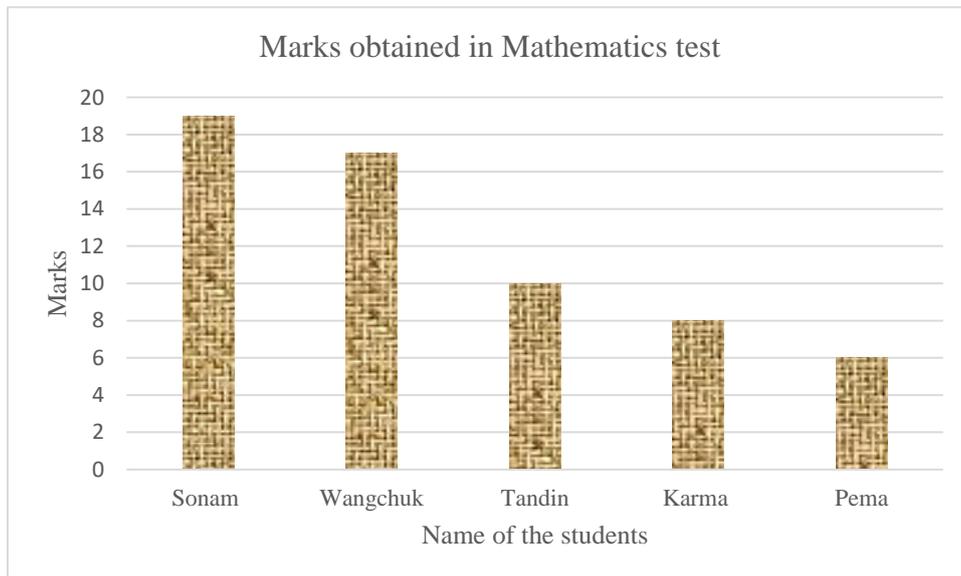


- A translate, reflect and rotate
- B rotate, reflect and translate
- C reflect, translate and rotate
- D translate, rotate and reflect

- xiv. Sonam measures an angle x . He placed the protractor as shown below. What is the measure of the angle x ?



- A 36°
B 44°
C 144°
D 156°
- xv. The graph below shows the marks obtained by 5 students in a Mathematics test.



What is the mean mark?

- A 10
B 12
C 24
D 60

SECTION B (30 MARKS)
ANSWER ALL QUESTIONS

Question 2

a. Write the number 807,906 in expanded form. [2]

b. Deepa, Sangay and Lekdhen went to pick apples using the same size basket on Sunday. Their collection of apples is shown in the table given below. [3]

Deepa	Sangay	Lekdhen
$\frac{3}{4}$	$\frac{4}{6}$	$\frac{7}{12}$

Who collected the minimum number of apples? Show your work.

Question 3

a. Rada scored 34 out of 60 in a Mathematics test. What percent of marks did she get? Show your work. [2]

- b. Sonam and Dorji are preparing tea. Sonam uses 2 sugar cubes for 3 cups of water and Dorji uses 4 sugar cubes for 6 cups of water. [3]
- i. Who used the higher ratio of sugar cubes to cups of water?

 - ii. If Sonam wants to prepare tea using 9 cups of water, how many sugar cubes will he require?

Question 4

- a. Tsheyang increased a number by 8 and got the sum 17. [3]
- i. Create the equation to show the above problem.

 - ii. Solve the problem.
- b. Draw a model to represent 0.4×0.5 .

Question 5

a. A truck is loaded with 4.5 tonnes of potatoes and 4.6 tonnes of cabbage. Find the total weight in Kilograms. [2]

b. A rectangular carpet has an area of 24 cm^2 . Draw and write **THREE** possible dimensions of the carpet. [3]

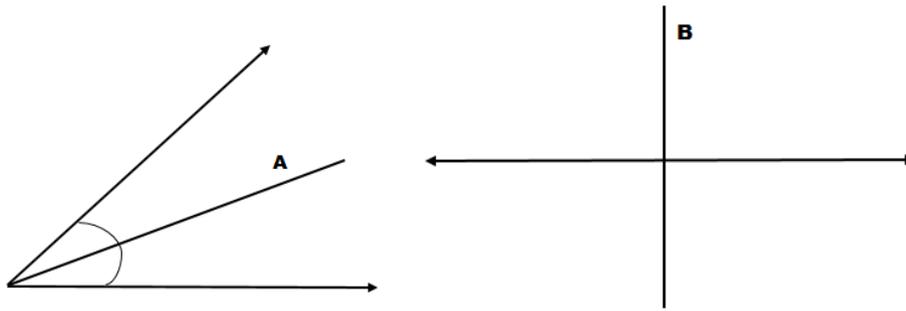
Question 6

a. Create a set of numbers where the mean is equal to median and the median is less than the mode. [3]

Mean = median < mode

- b. Yangchen bisected an angle and a line as shown below.

[2]



Name the bisector **A** and bisector **B**.

Question 7

- a. The price of a graph book in five different shops are given below.

[3]

Shop	A	B	C	D	E
Prices (Nu)	19	25	30	15	27

- i. Display the above data in stem and leaf plot.

- ii. Write **TWO** observations from the graph.

b. There are slips of paper in a bag. Some slips have letters on it and some have numbers on it. The probability of drawing a slip with a letter is $\frac{4}{7}$. [2]

i. What is the total number of slips in the bag?

ii. What is the probability of drawing a slip with a number on it?

Measurement Formulas and Relationships

1. Area of rectangle = $l \times w$
2. Area of parallelogram = $b \times h$
3. Area of a triangle = $\frac{b \times h}{2}$
4. Perimeter of rectangle = $2(l + w)$ or $l + w + l + w$
5. Perimeter of square = $4 \times s$ or $s + s + s + s$
6. Volume of a rectangular prism = $l \times b \times h$
7. Volume of a cube = $s \times s \times s$
8. Theoretical probability = $\frac{\text{Number of favourable outcomes}}{\text{Number of possible outcomes}}$
9. $1 \text{ cm}^3 = 1 \text{ ml} = 1 \text{ g}$
10. $1 \text{ tonnes} = 1000 \text{ kg}$
11. $1 \text{ kg} = 1000 \text{ g}$

Rough Work