



B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

PERIODIC TEST-2 (2025-26)

MATHEMATICS

MARKING SCHEME

Class: VI

Date: 07.11.25

Admission no:

Time: 1 hr.

Max Marks: 25

Roll no:

A. Choose the correct answer:

1 x 5 = 5

Perimeter of an equilateral triangle =

- (a) $2 \times \text{Length}$ (b) $3 \times \text{Length}$ (c) $4 \times \text{Length}$ (d) $6 \times \text{Length}$

2. The area of a rectangle of length 2 cm and breadth 1 cm is

- (a) 2 cm^2 (b) 1 cm^2 (c) 4 cm^2 (d) 8 cm^2

3. The length of boundary of a plane figure is called _____

- (a) area (b) **perimeter** (c) length (d) breadth

4. The fractions with the same denominator is called _____ fraction.

- (a) Unit (b) Unlike (c) **Like** (d) Improper

5. The simplest form of $\frac{16}{64}$ is _____

- (a) $\frac{2}{9}$ (b) $\frac{1}{5}$ (c) $\frac{1}{2}$ (d) $\frac{1}{4}$

B. Do as directed

2 x 4 = 8

6. Calculate the perimeter and area of a square with a side length of 5 units.

Solution:

Perimeter = 20 units, Area = 25 square units

The perimeter is $4 \times \text{side length} = 4 \times 5 \text{ units} = 20 \text{ units}$.

The area is $\text{side length} \times \text{side length} = 5 \text{ units} \times 5 \text{ units} = 25 \text{ square units}$.

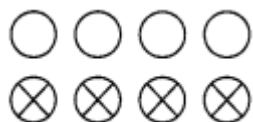
7. Write the following mixed numbers as improper fractions: a. $3\frac{1}{4}$ b. $7\frac{2}{3}$

Solution:

$$\begin{aligned} \text{a. } 3\frac{1}{4} &= \frac{(3 \times 4) + 1}{4} \\ &= \frac{13}{4} \end{aligned}$$

$$\begin{aligned} \text{b. } 7\frac{2}{3} &= \frac{(7 \times 3) + 2}{3} \\ &= \frac{23}{3} \end{aligned}$$

8. What fraction of these circles has X's in them?



Solution:

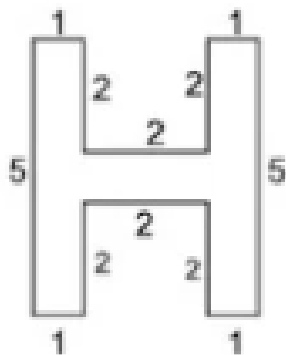
Total circles = 8

Circles with X's = 4

So, the fraction of circles with X's = $\frac{4}{8}$

$$= \frac{1}{2}$$

9. Find the perimeter of each of the following figure: (The measures are given in cm)



Solution:

Perimeter = sum of all sides

$$5 + 1 + 2 + 2 + 2 + 1 + 5 + 1 + 2 + 2 + 2 + 1 = 26 \text{ cm}$$

C. Solve the following

$$3 \times 4 = 12$$

10. A farmer has a rectangular field of length 230 m and breadth 160 m. He wants to fence it with rounds of rope as shown. What is the total length of rope needed?



Solution:

Perimeter of a rectangular field = 2 (length + breadth)

$$= 2 (230 \text{ m} + 160 \text{ m})$$

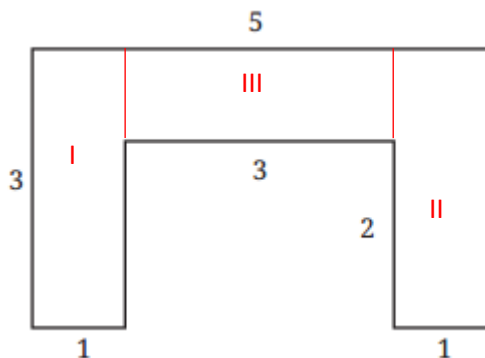
$$= 780 \text{ m}$$

The farmer wants 3 rounds of rope to fence.

$$\text{Total length of rope needed} = 780 \text{ m} \times 3$$

$$= 2340 \text{ m}$$

11. By splitting the following figure into rectangles, find their areas (all measures are given in meters):



Solution:

Area of the rectangle I = length \times breadth

$$= 3 \text{ cm} \times 1 \text{ cm}$$

$$= 3 \text{ sq. cm}$$

Area of rectangle II = length \times breadth

$$= 3 \text{ cm} \times 1 \text{ cm}$$

$$= 3 \text{ sq. cm}$$

Area of rectangle III = length \times breadth

$$= 3 \text{ cm} \times 1 \text{ cm}$$

$$= 3 \text{ sq. cm}$$

Total area of the figure = 3 sq. cm + 3 sq. cm + 3 sq. cm = 9 sq. cm.

Therefore, the total area of Figure (b) is 9 sq. cm.

12. Three rotis are shared equally by four children. Show the division in the picture and write a fraction for how much each child gets. Also, write the corresponding division facts, addition facts and multiplication facts.



Total pieces

Each roti is cut into 4 equal parts.

3 rotis \times 4 parts = 12 pieces in total.

12 pieces \div 4 children = 3 pieces each.

Each piece is $\frac{1}{4}$ of a roti.

So, each child gets $3 \times \frac{1}{4} = \frac{3}{4}$

Fraction each child gets = $\frac{3}{4}$

Division Fact:

$$3 \div 4 = \frac{3}{4}.$$

Addition Fact

$$\frac{3}{4} + \frac{3}{4} + \frac{3}{4} + \frac{3}{4} = 3.$$

Multiplication Fact

$$4 \times \frac{3}{4} = 3.$$

13. Write the following fractions in ascending order: $\frac{7}{10}$, $\frac{1}{15}$, $\frac{2}{5}$, $\frac{3}{10}$, $\frac{4}{5}$

Solution:

The denominators are 10,15,5,10,5

The LCM of 10, 15, and 5 = 30.

$$\frac{7}{10} = \frac{21}{30}$$

$$\frac{1}{15} = \frac{2}{30}$$

$$\frac{2}{5} = \frac{12}{30}$$

$$\frac{3}{10} = \frac{9}{30}$$

$$\frac{4}{5} = \frac{24}{30}$$

$$\frac{2}{30} < \frac{9}{30} < \frac{12}{30} < \frac{21}{30} < \frac{24}{30}$$

$$\frac{1}{15} < \frac{3}{10} < \frac{2}{5} < \frac{7}{10} < \frac{4}{5}$$