

PVG's
Muktangan English School & Jr. College, Pune - 9
Summative Written Test - II (2024-25)
STD VII

Subject : Mathematics

Marks - 50

Date : 01.04.2025

Time : 8.00 am to 10.00 am

Q1. A) Fill in the blanks by selecting the correct alternative and rewrite the statements (5)

- 1) $3x + 2y$ is a _____.
a) monomial b) binomial c) trinomial
- 2) The bank does not pay any interest on the money in _____ account.
a) Current b) Savings c) Fixed Deposits
- 3) Perimeter of a square = _____
a) $2 \times$ side b) $4 \times$ side c) $6 \times$ side
- 4) If radius of a circle is 6 cm, then its diameter is _____.
a) 3 cm b) 18 cm c) 12 cm
- 5) $3a \times 11b =$
a) $13ab$ b) $33ab^2$ c) $33ab$

B) Write the following statements and state whether it is true or false. (5)

- 1) The measure of a circle is 360° .
- 2) If the side of a square is 12 cm, then its area is 100 cm^2 .
- 3) Full form of ATM is Automatic Teller Machine.
- 4) Total surface area of the cube is $6 \times \text{Side}^2$.
- 5) The number of oranges and their cost vary in inverse proportion.

Q2. Attempt any six of the following questions. (12)

- 1) The daily rainfall for 5 days in a certain city is given in millimetres. Find the average rainfall.
16, 20, 16, 12, 11.

2) Expand $(3p + 7q)^2$ by filling in the given boxes

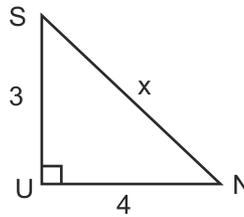
Solution : By using formula,

$$(a+b)^2 = a^2 + 2ab + b^2$$

$$\therefore (3p+7q)^2 = \boxed{} + 2 \times 3p \times \boxed{} + (7q)^2$$

$$\therefore (3p+7q)^2 = 9p^2 + \boxed{} + \boxed{}$$

3) Observe the figure along side & find the value of x.



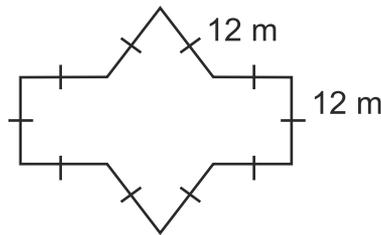
4) Solve the following.

a) Add : $(9p + 16q) + (13p + 2q)$

b) Subtract : $(4xy - 9z) - (3xy - 16z)$

5) If the circumference of a circle is 176cm, find its radius.

6) Find the perimeter of a figure given alongside.



7) Observe the figure alongside and find measure of the major arc PYQ by filling in the given boxes.

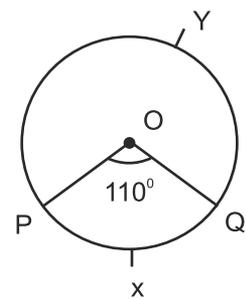
Solution : $m \angle POQ = \boxed{}$

$m (\text{arc } PXQ) = \boxed{}$

measure of major arc = 360° - measure of corresponding minor arc.

$m (\text{arc } PYQ) = 360^\circ - \boxed{}$

$\therefore m (\text{arc } PYQ) = \boxed{}$



Q3. Attempt any 5 of the following questions.

(15)

- 1) If Akshay deposits 1500 rupees in the school fund at 9 p.c.p.a for 2 years, what is the total amount he will get? (Complete the activity by filling in the boxes)

Solution : Total Interest (I) = (formula)

$$= \frac{1500 \times \text{} \times 2}{100}$$
$$= \frac{\text{}}{100}$$
$$= \text{} \text{ rupees}$$

Total Amount = + Interest (formula)

$$= 1500 + 270$$
$$= \text{} \text{ rupees}$$

Ans. Hence, Akshay will get total amount of .

- 2) For 9 cows, 13 kg 500 g of food supplement are required every day. In the same proportion how much will be needed for 12 cows?
- 3) Complete the following table.

Term	Coefficient	Variable
5pq	<input type="text"/>	<input type="text"/>
$-7x^3y^2$	<input type="text"/>	<input type="text"/>
a	<input type="text"/>	<input type="text"/>

- 4) Use the formula to find the value of : 502×498
- 5) A match box is 4 cm long, 2.5 cm broad and 1.5 cm in height. Its outer sides are to be covered exactly with craft paper. How much paper will be required to do so?
- 6) The sum of two consecutive natural numbers is 69. Find the numbers.

Q4. Attempt any two of the following questions

(8)

- 1) Sayali and Gauri invested 3500 and 5000 rupees respectively and started a business. They made profit of 3400 rupees. How should profit be shared?

2) Find the Pythagorean triplets from among the following sets of numbers.

a) 8,15,17

b) 2,6,7

3) A rectangular hall is 15 m long and 6m broad. Its flooring is to be made of square tiles of side 30 cm. How many tiles will fit in the entire hall? (Complete the activity by filling in the boxes)

Solution: We know that, 1 m = 100 cm

$$\therefore \text{Hall length} = 15 \text{ m} = \boxed{} \text{ cm}$$

$$\text{Hall breadth} = 6 \text{ m} = \boxed{} \text{ cm}$$

$$\therefore \text{Area of Hall} = \text{length} \times \text{breadth}$$

$$= 1500 \times 600$$

$$= \boxed{} \text{ cm}^2$$

Now,

$$\therefore \text{Area of tile} = (\text{side})^2$$

$$= \boxed{}^2$$

$$= \boxed{} \text{ cm}^2$$

\therefore Total number of tiles required

$$= \frac{\text{Area of hall}}{\text{Area of tile}}$$

$$= \frac{\boxed{}}{\boxed{}}$$

$$= \boxed{} \text{ tiles}$$

Ans. Total number of tiles required are $\boxed{}$

Q 5. Attempt any one of the following questions.

(5)

- 1) The distance at which 30 children live from their school is given in kilometres below.

1,3,2,4,5,4,1,3,4,5,3,4,4,3,3,2,2,3,3,1,1,2,2,4,4,5,1,2,3,2

Complete the frequency table from above data

Score	Tally marks	Frequency
<input type="text"/>	<input type="text"/>	5
2	<input type="text"/>	<input type="text"/>
<input type="text"/>	III	<input type="text"/>
4	<input type="text"/>	7
<input type="text"/>	<input type="text"/>	3
	Total	<input type="text"/>

- 2) The number of chapatis that 20 children in a hostel need at every meal is given below.

Prepare frequency table for these score.

3,2,2,3,4,5,4,3,4,5,2,3,4,3,2,5,4,4,4,3



