

Class: VII
Subject: Maths

Max. Mark: 60
Duration: 2 ½ hours

Instructions

Answer all questions.

Section A : Q No. 1 to 8 are of multiple Choice type and carry 1 mark each.

Section B : Q No. 9 to 14 are short answer type and carry 2 marks each.

Section C : Q No. 15 to 22 are short answer type and carry 3 marks each.

Section D : Q No. 23 to 26 are long answer type and carry 4 marks each.

Section A

1. If $\triangle ART \cong \triangle PEN$, then $RT = \underline{\hspace{2cm}}$ and $\angle A = \underline{\hspace{2cm}}$

- (a) EN, $\angle P$ (b) $\angle P$, EN (c) PE, $\angle T$ (d) PN, $\angle N$

2. Which of the following English alphabet has reflectional symmetry about a vertical mirror?

- (a) B (b) D (c) V (d) E

3. The ratio of 3km to 300m is

- (a) 1 : 10 (b) 10 : 1 (c) 3 : 100 (d) 100 : 3

4. The product of a rational number with its reciprocal is always

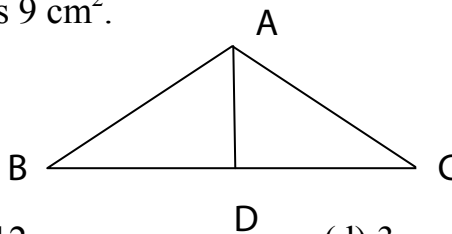
- (a) 0 (b) infinite (c) 1 (d) None

5. Which of the following is a binomial?

- (a) $3x^2y$ (b) $2 + x$ (c) $5x + 6y - 3$ (d) 7 mn

6. In $\triangle ABC$, height $AD = 3$ cm. Its area is 9 cm^2 .

Then, its base BC is



- (a) 6 cm. (b) 9 cm. (c) 12 cm. (d) 3 cm.

7. The value of $(3^0 + 2^0) \times 5^0$ is

- (a) 1 (b) 25 (c) 0 (d) 2

8. When a ball is cut horizontally, its cross section is a _____.

- a) Square (b) Rectangle (c) Circle (d) Triangle

Section B

9. Express 1000 as product of powers of its prime factors.
10. Find the whole quantity, if 40% of it is 500km.
11. Find the value of: — —
12. Draw 2 plane figures with more than one line of symmetry.
13. Find the Simple Interest on Rs.5000 for 3 years at the rate of 10% per annum.

(Or)

The cost price of a bag is Rs. 350. It is sold for a profit of Rs. 35. Find the profit percent.

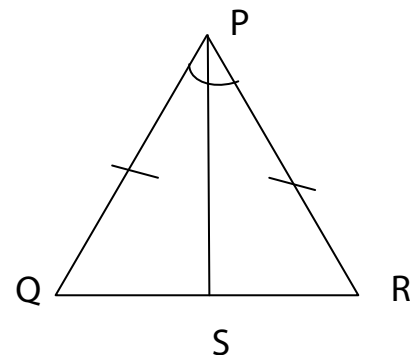
14. Draw an oblique sketch of a cuboid.

Section C

15. In figure given $PQ = PR$ and PS is the bisector of $\angle QPR$.

(i) State three pairs of equal parts in Triangles PSQ and PSR

(ii) Is $\triangle PSQ \cong \triangle PSR$



16. The perimeter of a rectangular sheet is 100 cm. If the length is 35cm, find its breadth. Also find its area.

17. Arrange the following rational numbers in ascending order: — , — , —

18. A gardener wants to fence a circular garden of diameter 21m. Find the length of the wire he needs to purchase and cost of it at the rate of Rs.4 per metre.

(Or)

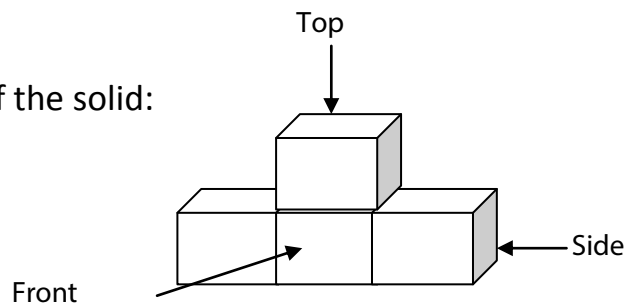
Amit runs around a rectangular park which is 120m long and 80 m wide. Find the distance he covers in 3 rounds.

19. Simplify the expression $2(a^2 + ab) - ab$ and find its value if $a = 5$ and $b = 2$.

20. Simplify: _____.

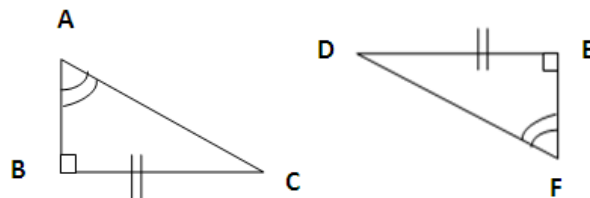
21. Write the Order of Rotation and angle of symmetry of (a) Square (b) Rectangle and (c) Equilateral Triangle.

22. Draw the Top, Side and Front view of the solid:



Section D

23. Explain why $\triangle ABC \cong \triangle FED$?



24. Selling price of a toy car is Rs. 480. If the profit made by shopkeeper is 20%, what is its cost price?

(Or)

The population of a city decreased from 25,000 to 24,500. Find the percentage of decrease.

25. A rectangular park is 45m long and 30m wide. A 2.5m wide path is constructed outside the park. Find the area of the path.

26. From the sum of $4 + 3x$ and $5 - 4x + 2x^2$, subtract the sum of $3x^2 - 5x$ and $-x^2 + 2x + 5$
