

Tender Heart High School, Sec 33B, Chd.

Class: 9th

Date: 24.2.2025

Subject: Mathematics

Teacher: Ms. Reena

Multiple Choice Questions

Q1 The class mark of the class 90-120 is

- (a) 90 (b) 105 (c) 115 (d) 120

Q2 The class marks of a frequency distribution are given as follows :-

15, 20, 25, ---

The class corresponding to the class mark 20 is

- (a) 12.5 - 17.5 (b) 17.5 - 22.5
(c) 18.5 - 21.5 (d) 19.5 - 20.5

Q3 If the mean of x_1, x_2 is 7.5 and the mean of x_1, x_2, x_3 is 8, then the value of x_3 is

- (a) 9 (b) 8 (c) 7.5 (d) 6

Q4 Point $(0, -7)$ lies

- (a) on the x-axis (b) in the second quadrant
(c) on the y-axis (d) in the fourth quadrant

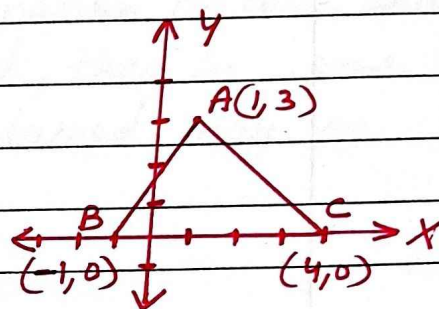
Q5 On plotting the points $O(0,0)$, $A(3,0)$, $B(3,4)$, $C(0,4)$ and joining OA, AB, BC and CO which of the following figure is obtained?

- (a) square (b) Rectangle
(c) Trapezium (d) Rhombus

Q6 Which of the following points lie on the graph of the equation: $3x - 5y + 7 = 0$
(a) $(1, -2)$ (b) $(2, 1)$ (c) $(-1, 2)$ (d) $(1, 2)$

Q7 In the adjoining figure, the area of the triangle ABC is

- (a) 15 sq. units (b) 10 sq. units
(c) 7.5 sq. units (d) 2.5 sq. units



Q8 The distance between the points $(4, p)$ and $(1, 0)$ is 5 units, then the value of 'p' is
(a) 4 only (b) -4 only (c) ± 4 (d) 0

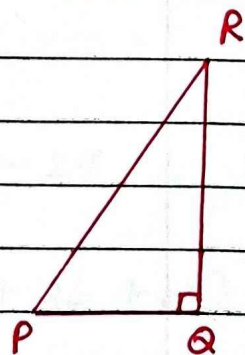
Q9 The value of $\frac{1}{\sin 30^\circ} - \frac{\sqrt{3}}{\cos 30^\circ}$ is

- (a) 2 (b) 1 (c) $\frac{1}{2}$ (d) 0

Q10 The value of $\frac{1 - \tan^2 45^\circ}{1 + \tan^2 45^\circ}$ is equal to

- (a) $\tan 60^\circ$ (b) $\tan 30^\circ$ (c) $\sin 45^\circ$ (d) $\tan 0^\circ$

Q11 In the adjoining figure, PQR is a right triangle at Q. If $PQ = 4\text{ cm}$ and $PR = 8\text{ cm}$ then $\angle P$ is equal to
(a) 60° (b) 45° (c) 30° (d) 15°



Q12 If the lengths of diagonals of a rhombus is doubled, then area of rhombus will be
(a) doubled (b) tripled
(c) four times (d) remains same

Q13 Assertion (A): A pair of linear equations in two variables cannot have more than one solution.

Reason (R): If we solve a pair of linear equations in one variables, first by elimination method and then by cross multiplication method, then in some cases the two solutions so obtained may be different

- (a) A is true, R is false
- (b) A is false, R is true
- (c) Both A and R are true
- (d) Both A and R are false

Q14 Assertion (A): The mean of 19 numbers is 38.

If the mean of the first 10 numbers is 36 and that of the last 10 is 40, then the 10th number is 38

Reason (R): $\text{Mean} = \frac{\text{Sum of observation}}{\text{No. of observation}}$

- (a) A is true, R is false
- (b) A is false, R is true
- (c) Both A and R are true
- (d) Both A and R are false

Q15 Assertion (A): Factorisation of $x^3 - 27$ is $(x-3)(x^2+3x+9)$

Reason (R): $a^3 - b^3 = (a-b)(a^2+ab+b^2)$

- (a) A is true, R is false
- (b) A is false, R is true
- (c) Both A and R are true
- (d) Both A and R are false.