

Holiday Homework

Class 9 Mathematics(2026-27)

Multiple Choice Questions

1. The ordinate of all the points on the x-axis is:
 - (a) 3
 - (b) 0
 - (c) -3
 - (d) 1
2. The abscissa of all the points on the y-axis is:
 - (a) -1
 - (b) 1
 - (c) 0
 - (d) 2
3. The signs of the coordinates of a point in the second quadrant are:
 - (a) (+, +)
 - (b) (-, +)
 - (c) (-, -)
 - (d) (+, -)
4. The origin lies on:
 - (a) y-axis
 - (b) both x-axis and y-axis
 - (c) x-axis
 - (d) neither x-axis nor y-axis
5. The point $(-4, 7)$ lies in:
 - (a) I quadrant
 - (b) II quadrant
 - (c) III quadrant
 - (d) IV quadrant
6. The point $(0, -5)$ lies:
 - (a) on the x-axis
 - (b) in the II quadrant
 - (c) on the y-axis
 - (d) in the IV quadrant
7. The point $(-7, 0)$ lies:
 - (a) in the negative direction of x-axis
 - (b) in the negative direction of y-axis
 - (c) in the III quadrant
 - (d) in the IV quadrant

8. A point whose both coordinates are negative lies in:
- (a) I quadrant
 - (b) II quadrant
 - (c) III quadrant
 - (d) IV quadrant
9. If the perpendicular distance of a point from the x-axis is 5 units, then the point has:
- (a) x-coordinate = -5
 - (b) y-coordinate = 5 only
 - (c) y-coordinate = -5 only
 - (d) y-coordinate = 5 or -5
10. The points whose abscissa and ordinate have different signs lie in:
- (a) I and II quadrants
 - (b) II and III quadrants
 - (c) I and III quadrants
 - (d) II and IV quadrants
11. If $P(-1, 1)$, $Q(3, -4)$, $R(1, -1)$, $S(-2, -3)$ and $T(-4, 4)$ are plotted on a graph paper, then the points in the fourth quadrant are:
- (a) P and T
 - (b) Q and R
 - (c) S only
 - (d) P and R
12. If $P(5, 1)$, $Q(8, 0)$, $R(0, 4)$, $S(0, 5)$ and $O(0, 0)$ are plotted on the graph paper, then the point(s) on x-axis are:
- (a) P and R
 - (b) R and S
 - (c) only Q
 - (d) Q and O
13. The points (other than origin) for which abscissa is equal to ordinate will lie in:
- (a) I quadrant only
 - (b) I and II quadrants
 - (c) I and III quadrants
 - (d) II and IV quadrants
14. If $x > 0$ and $y < 0$, then the point (x, y) lies in:
- (a) I quadrant
 - (b) II quadrant
 - (c) III quadrant
 - (d) IV quadrant
15. The points $(1, -1)$, $(2, -2)$, $(4, -5)$, $(-3, -4)$:
- (a) lie in II quadrant
 - (b) lie in III quadrant
 - (c) lie in IV quadrant
 - (d) do not lie in the same quadrant
16. If the y-coordinate of a point is zero, then the point always lies:
- (a) in I quadrant

- (b) in II quadrant
- (c) on x-axis
- (d) on y-axis

17. The image of the point $(-3, -4)$ in x-axis lies in:

- (a) I quadrant
- (b) II quadrant
- (c) III quadrant
- (d) IV quadrant

18. Abscissa of a point is positive in:

- (a) I and II quadrants
- (b) I and IV quadrants
- (c) I quadrant only
- (d) II quadrant only

19. The point whose ordinate is 4 and which lies on y-axis is:

- (a) $(4, 0)$
- (b) $(0, 4)$
- (c) $(1, 4)$
- (d) $(4, 2)$

20. The coordinates of the point which lies on y-axis at a distance of 4 units in negative direction of y-axis are:

- (a) $(4, 0)$
- (b) $(-4, 0)$
- (c) $(0, -4)$
- (d) $(4, -4)$

21. The area of the figure formed by joining the points $P(4, 4)$, $Q(4, -4)$, $R(-4, -4)$ and $S(-4, 4)$ in order is:

- (a) 24 sq. units
- (b) 16 sq. units
- (c) 64 sq. units
- (d) 48 sq. units

22. The distance of the point $P(-6, 8)$ from the origin is:

- (a) 6 units
- (b) 8 units
- (c) 14 units
- (d) 10 units

23. If the coordinates of the vertices of a triangle are $O(0, 0)$, $A(6, 0)$ and $B(0, 8)$, then the area of the triangle is:

- (a) 48 sq. units
- (b) 24 sq. units
- (c) 14 sq. units
- (d) 12 sq. units

24. Which of the following points do not lie on the x-axis?

$P(0, 3)$, $Q(1, 0)$, $R(0, -1)$, $S(-5, 0)$, $T(1, 2)$

- (a) P and R only

- (b) Q and S only
 - (c) P, R and T
 - (d) Q, S and T
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Case Study Based Questions

Case Study 1: Water Conservation Campaign

A school organised a campaign to spread awareness about saving water and keeping the environment clean. During the campaign, 5 out of every 7 students from Class IX and 2 out of every 9 students from Class X participated in different activities.

Based on the above information, answer the following questions:

1. Write any three rational numbers between 5 and 7.
 2. Insert one rational number between:
 $\frac{5}{7}$ and $\frac{9}{5}$
 3. Convert the rational number $\frac{7}{8}$ into decimal form.
 4. State whether the decimal expansion of $\frac{13}{25}$ is terminating or non-terminating.
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Case Study 2: Tree Plantation Drive

Students of a school participated in a tree plantation drive. Out of every 10 students, 7 students planted neem trees and 3 students planted mango trees in the school campus.

Based on the above information, answer the following questions:

- Write two rational numbers between 2 and 3.
- Insert one rational number between: $\frac{3}{5}$ and $\frac{4}{5}$
- Express (0.625) in the form $\frac{p}{q}$, where q is not equal to zero.
- Find whether $\frac{11}{40}$ has a terminating decimal expansion or not.

Do case study based question no. 1 to 3 of page no. 8.57 from the book Elements of maths.

Activity:

1. To construct a square root by spiral method.

2. To find quadrants and coordinates by using mirror image of given geometrical figure with respect to the x-axis and y -axis.

Art Integrated Project Work:

(Bio diversity of Manipur)