## Practice Questions - Term I

Date: 15/11/2021
Subject: Mathematics
Topic : Coordinate Geometry
Class: X

1. Find the point $(x, y)$ that divides the join of $A(3,6)$ and $B(7,10)$ in the ratio $3: 1$
A. $(8,9)$.
B. $(4,5)$
C. $(6,9)$
D. None of these
2. $C$ is the mid-point of $P Q$. If $P$ is $(4, x), C$ is $(y,-1)$ and $Q$ is $(-2,4)$, then $x$ and y respectively are $\qquad$ .
A. -6 and 1
B. -6 and 2
C. 6 and -1
D. 6 and -2
3. Find the point that divides $A(2,4)$ and $B(6,8)$ in the ratio a : 1 .
A. $\left(\frac{6 a+1}{a+1}, \frac{8 a+4}{a+1}\right)$
B. $\left(\frac{6 a+2}{a+1}, \frac{8 a+4}{a+1}\right)$
C. $\left(\frac{6+2 a}{a+1}, \frac{8+4 a}{a+1}\right)$
D. $\left(\frac{6 a+8}{a+1}, \frac{2 a+4}{a+1}\right)$

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4. If the distance between the points $(4, p)$ and $(1,0)$ is 5 , then $p=$ $\qquad$
A. $\pm 4$
B. $\pm 2$
C. $\pm 2 \sqrt{2}$
D. $\pm 4 \sqrt{2}$
5. The distance between the points $(5,5)$ and $(3,3)$ is $\qquad$ .
A. 2 units
B. $2 \sqrt{2}$ units
C. $\sqrt{2}$ units
D. $8 \sqrt{2}$ units
6. The distance of the point $(-2,-2)$ from the origin is $\qquad$ units.
A. $\sqrt{9}$
B. $2 \sqrt{2}$
C. 8
D. $\sqrt{2}$
7. $P$ is the point on the $y$-axis which is equidistant from $A(-5,-2)$ and $B(3,2)$, then $\mathrm{PA}=$ $\qquad$ cm .
A. 2
B. 6
C. 3
D. 5

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The ratio in which the line segment $P Q$, where $P(-5,2)$ and $Q(2,3)$, is divided by the y-axis is
A. $6: 5$
B. $3: 5$
C. $7: 2$
D. $5: 2$
9. Determine the ratio in which the graph of the equation $3 x+y=9$ divides line segment joining the points $A(2,7)$ and $B(1,3)$.
A. $\frac{4}{3}$
B. $\frac{2}{3}$
C. $\frac{1}{3}$
D. $\frac{3}{4}$
10. If Point $P(-4,6)$ divides the line segment $A B$ with $A(-6,10)$ and $B(x, y)$ in the ratio 3:2, find the co-ordinates of $B$.
A. $\left(\frac{11}{3}, \frac{14}{3}\right)$
B. $\left(\frac{8}{3}, \frac{-10}{3}\right)$
C. $\left(\frac{-8}{3}, \frac{10}{3}\right)$
D. $\left(\frac{-16}{3}, \frac{8}{3}\right)$

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The point on the $x$-axis which is equidistant from $(2,-5)$ and $(-2,9)$ is
A. $(-2,0)$
B. $(2,0)$
C. $(-7,0)$
D. $(7,0)$
12.

If $A(-2,-1), B(a, 0), C(4, b)$ and $D(1,2)$ are the vertices of a parallelogram, find the values of $a$ and $b$.
A. $a=1$ and $b=3$
B. $\mathrm{a}=2$ and $\mathrm{b}=3$
C. $a=1$ and $b=1$
D. $a=1$ and $b=4$
13. If the points $A(1,2), B(4,3), C(1,0)$ and $D(p,-1)$ are the vertices of a parallelogram then, find the value of $p$.
A. 3
B. -2
C. 4
D. 0

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the Midpoint of $A B$. Find the value of $m$.
A. -10
B. -1
C. -6
D. -12
15. The distance between $A(1,3)$ and $B(x, 7)$ is 5 . The value of $x$ if $x>0$ is :
A. 4
B. 2
C. 1
D. 3

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16. In a classroom, 4 friends are seated at the points $A, B, C$ and $D$ as shown in the following figure. The point $A(3,4), B(6,7), C(9,4)$ and $D(6,1)$ taken in order form the vertices of $\qquad$

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images/ckeditor_assets/pictures/10467/content_31.jpg)
A. Square
B. Rectangle
C. Rhombus
D. Rhombus
17. From the figure, find the ratio in which the line segment joining the points $A(3,4)$ and $C(9,4)$ is divided by $x=5$.
A. $1: 1$
B. $2: 1$
C. 1:2
D. $3: 1$

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18. From the figure, the distance between the points $A(3,4)$ and $C(9,4)$ is
A. 3
B. 4
C. 5
D. 6
19. Mid-point of the line-segment joining the points $A(3,4)$ and $C(9,4)$ is:
A. $(3,6)$
B. $(4,3)$
C. $(6,4)$
D. $(4,6)$
20. From the figure, find the ratio in which the line segment joining the points $B(6,7)$ and $D(6,1)$ is divided by $y=4$.
A. $1: 1$
B. $1: 2$
C. $2: 1$
D. $3: 2$
