

4. CO-ORDINATE SYSTEM

①

2025/26

Class: IX. MATHEMATICS
INTEGRATED SOLUTIONS

TEACHING TASK JEE MAINS LEVEL

01. $(-1, -2) \in Q_3$

Ans: B

02. $(2, 0) \in X\text{-axis}$

Ans: C

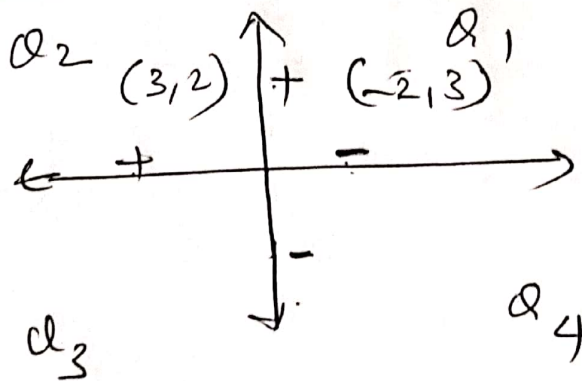
03. $(2, -4) \in Q_4$

Ans: B

04. $(-2, 0) \in \text{Negative } X\text{-axis}$

Ans: C

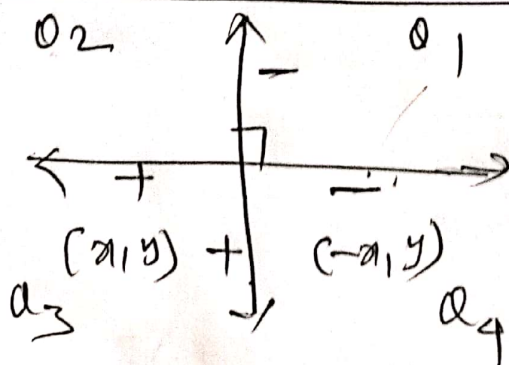
05



$(3, 2) \in Q_2$

Ans: A

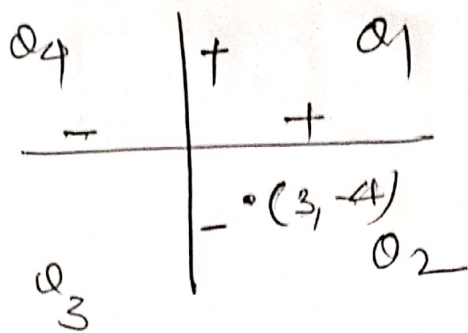
06



$(-x, y) \in Q_4$

Ans: C

07.

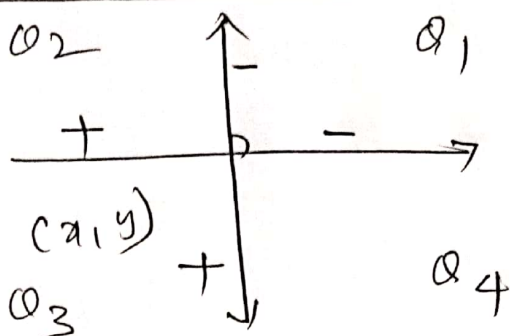


$$(3, -4) \in Q_2$$

(2)

Ans. B

08



$$(x, y) \in Q_3$$

Ans. B

10

$$(1, 2) \in Q_1, (-2, -3) \in Q_3, (2, -3) \in Q_4$$

Ans. B

09

Conceptual

Ans. D

JEE ADVANCED LEVEL

11

$$(3, 0), (0, 0) \in X\text{-axis}$$

Ans. A, C

12

$$(0, 0), (0, 1), (0, 3) \in Y\text{-axis}$$

Ans. A, C, D

13.

Statement I: $(2, 3), (\sqrt{2}, \sqrt{3}), (\frac{1}{2}, \frac{1}{3}) \in Q_1$ (True)

Statement II: Conceptual (True) Ans. A

14

Statement II: Since y-coordinate of each point is ≥ 0 , the points belong to X-axis

Statement II: Conceptual (True).

Ans. A



15.

$$x < 0 \Rightarrow -x > 0$$

$$\therefore (-x, y) = (+, +) \in Q_1$$

Ans. A

16

$$x < 0 \Rightarrow -x > 0, \quad y < 0 \Rightarrow -y > 0$$

$$\therefore (-x, -y) = (+, +) \in Q_1$$

Ans. A

17

$$A(2, 0), \quad B(4, 0)$$

$$AB = |4 - 2| = |2| = 2$$

Ans. 2

18

$$A(0, -4), \quad B(0, 4)$$

$$AB = |4 - (-4)| = |4 + 4| = |8| = 8$$

Ans. 8

19

a) Conceptual (t)

b) Conceptual (s)

c) Conceptual (x)

d) Conceptual (v)

Ans. t, s, x, v

20.

$$\textcircled{23} \text{ a) } (-3, 4) \in Q_2 \text{ (v)}$$

$$\text{b) } (1, 3) \in Q_1 \text{ (p)}$$

$$\text{c) } \left(-\frac{1}{2}, -\frac{1}{3}\right) \in Q_3 \text{ (x)}$$

$$\text{d) } (3, -4) \in Q_4 \text{ (s)}$$

Ans. v, p, x, s

LEARNERS TASK

CUQ'S

(4)

01.	$(0, y) \in Y\text{-axis}$	Ans: D
02.	$X\text{-axis}$	Ans: B
03	$Y\text{-axis}$	Ans: C
04	$(-3, 4) \in Q_2$	Ans: B
05	$ 3 = 3$	Ans: B
06	$ -3 = 3$	Ans: C
07.	$(0, 0)$	Ans: B
08	Negative $X\text{-axis}$	Ans: D
09	None	Ans: D
10	Can not say	

JEE MAINS LEVEL

01.	$2x + 1 = 0 \Rightarrow x = -\frac{1}{2}$; $y - 1 = 0 \Rightarrow y = 1$ $\therefore (-\frac{1}{2}, 1)$	Ans: D
02	$A(-3, 2), B(2, 2)$ $AB = 2 - (-3) = 2 + 3 = 5$	Ans: C
03	$P(4, 2), Q(4, -5)$ $PQ = -5 - 2 = -7 = 7$	Ans: B

04 $A(4,0), B(6,0)$
 $M = \left(\frac{4+6}{2}, 0\right) = (5,0)$

Ans: D

05 $P(0,8), Q(0,12)$
 $M = \left(0, \frac{8+12}{2}\right) = (0,10)$

Ans: B

06 $(-,+) \in Q_2$

Ans: C

07 $(-10,0) \in \text{Negative } x\text{-axis}$

Ans: C

08 Any number

Ans: D

09 0

Ans: B

10 Q_1 and Q_4

Ans: D

JEE ADVANCED LEVEL

11. $(x,y) \in Q_3 \Leftrightarrow x < 0, y < 0$

Ans: A, C

12 Statement I: Conceptual (True)
Statement II: Conceptual (True)

Ans: A

13 $(-x, -y) \in Q_3$

Ans: C

14 $x+1=0 \Rightarrow x=-1; 2y+1=0 \Rightarrow y=-\frac{1}{2}$
 $\therefore (-1, -\frac{1}{2}) \in Q_3$

Ans: C

15 $A\left(\frac{3+7}{2}, 0\right) = (5,0)$ | $AB = |-4-5|$
 $B\left(-\frac{2-6}{2}, 0\right) = (-4,0)$ | $= 9$

Ans: 9

16) a) $(3, 0)$ (x)

b) $(-3, 0)$ (t)

c) $(0, 3)$ (p)

d) $(0, -3)$ (q)

Ans: x, t, p, q

⇒ THE END ⇐