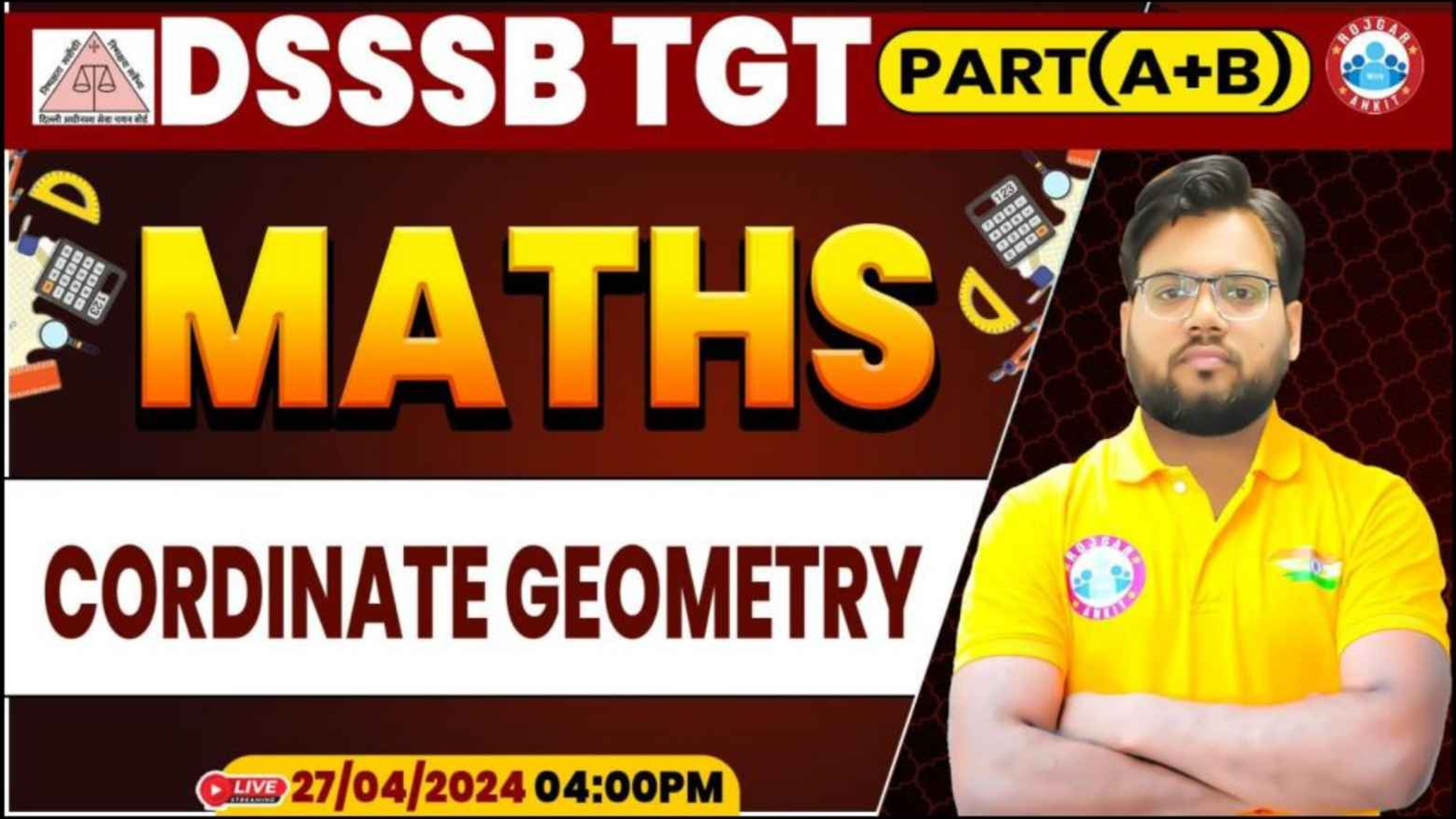
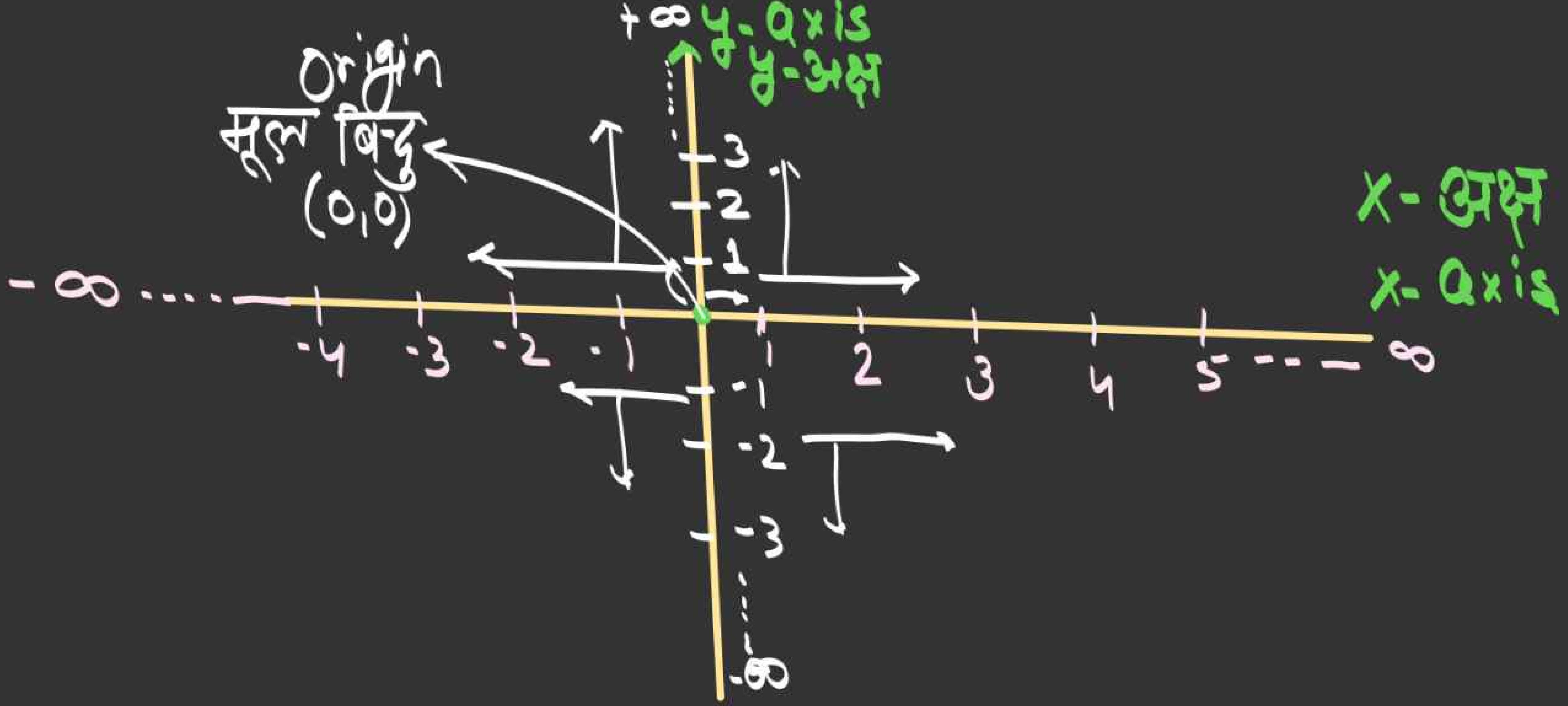
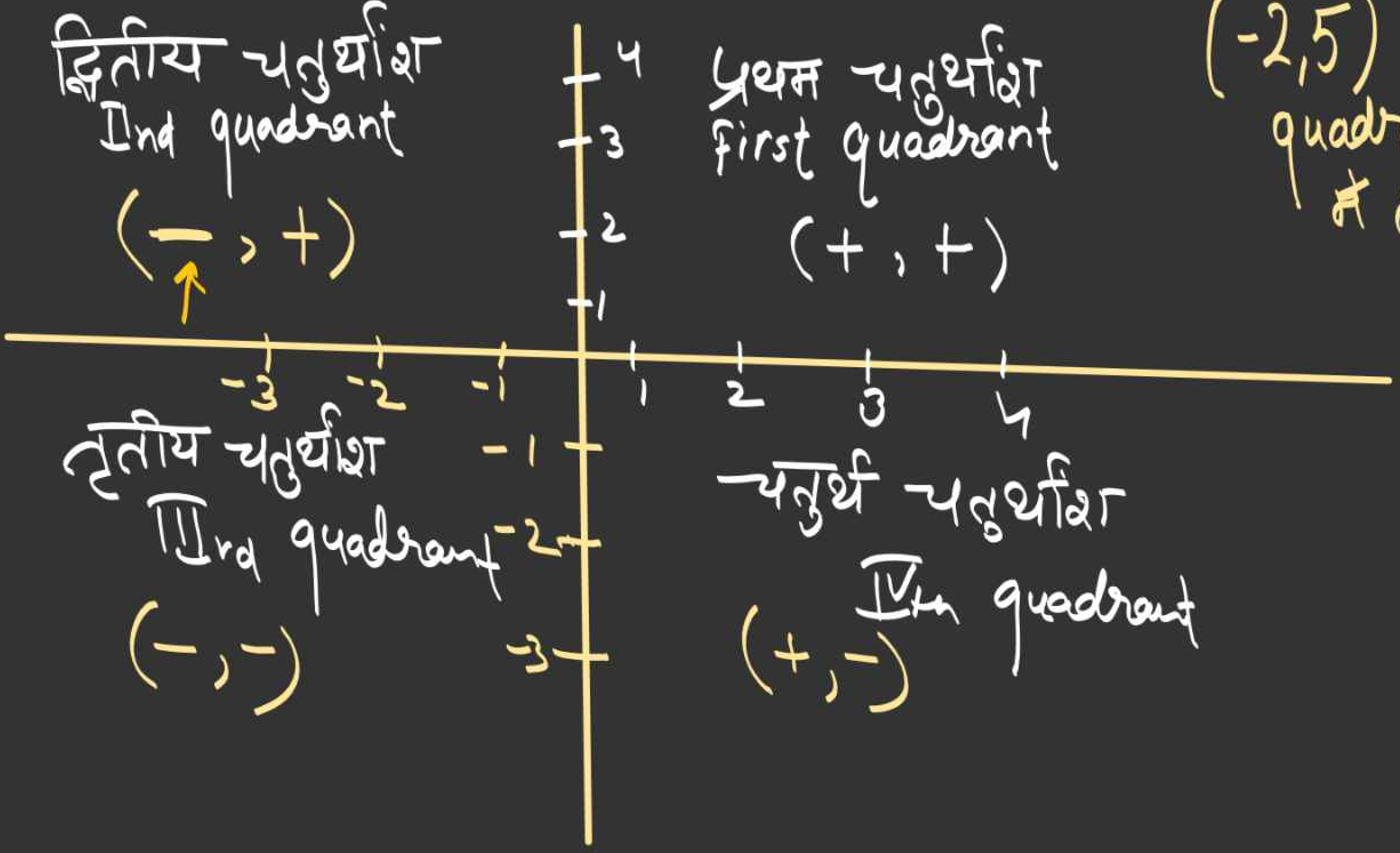

DSSSB TGT
PART(A+B)
MATHS
CORDINATE GEOMETRY
LIVE
27/04/2024 04:00PM

Co-ordinate Geometry →

निर्देशांक ज्यामिती





(-2,5) किस quadrant में होगा।

IInd

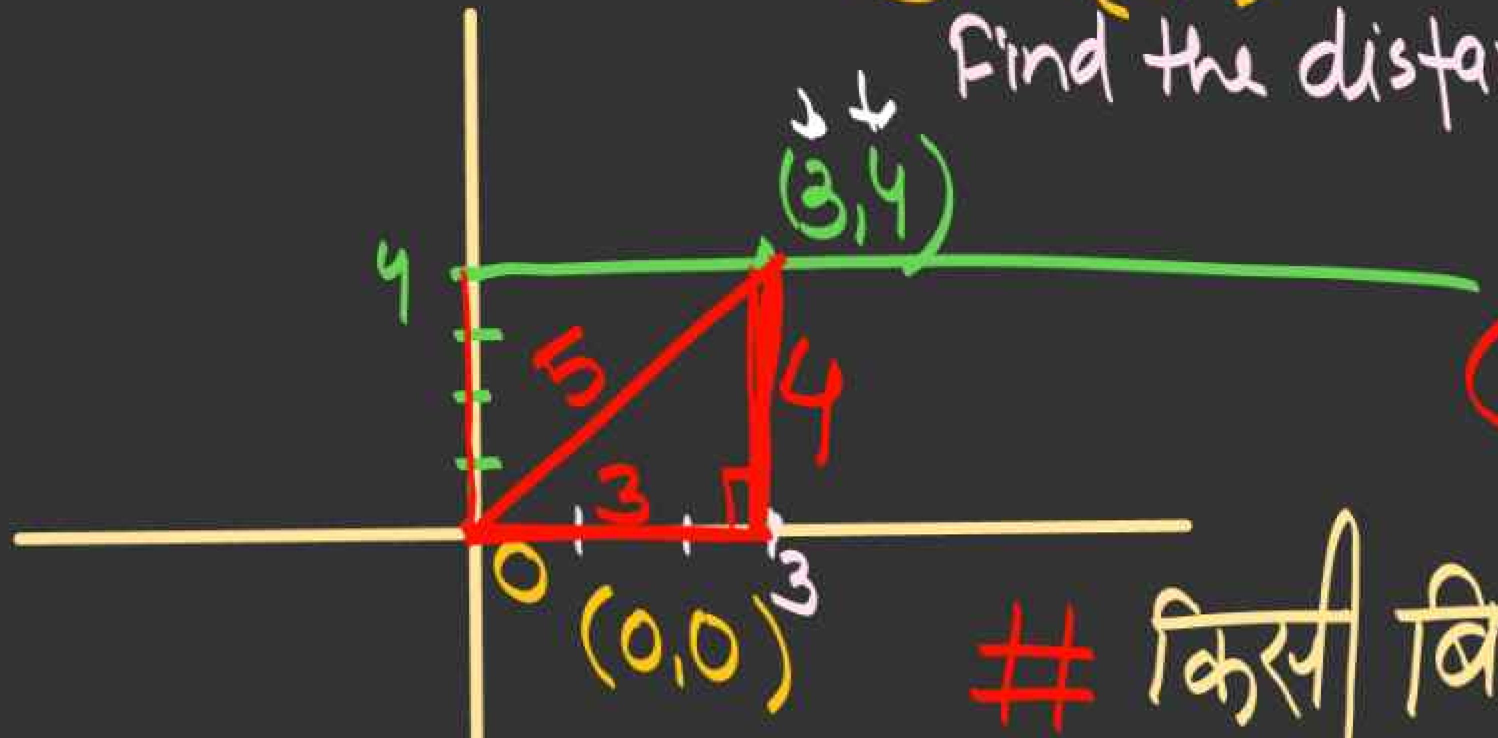
(x, y)

x → भुज (Abssica)

y → कोटि (Ordinate)

बिन्दु (3,4) की मूल बिन्दु से दूरी?

Find the distance of the point (3, 4) from the origin?



⇓

5 unit

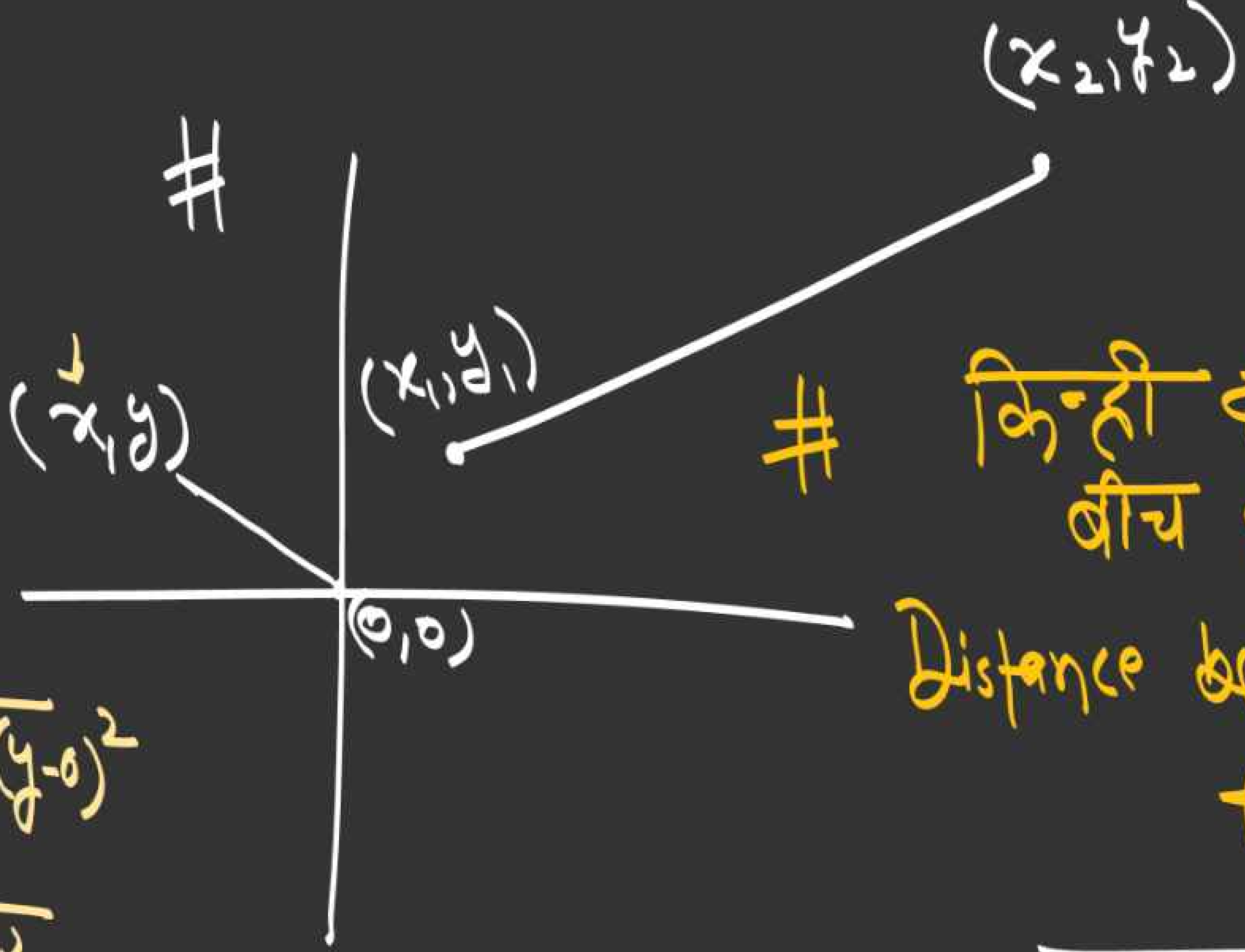
किसी बिन्दु (x, y) की मूल बिन्दु से दूरी =

Distance of a point (x, y) from origin ⇒

$$\sqrt{x^2+y^2}$$

$$\sqrt{9+16} \Rightarrow \sqrt{25}$$

5



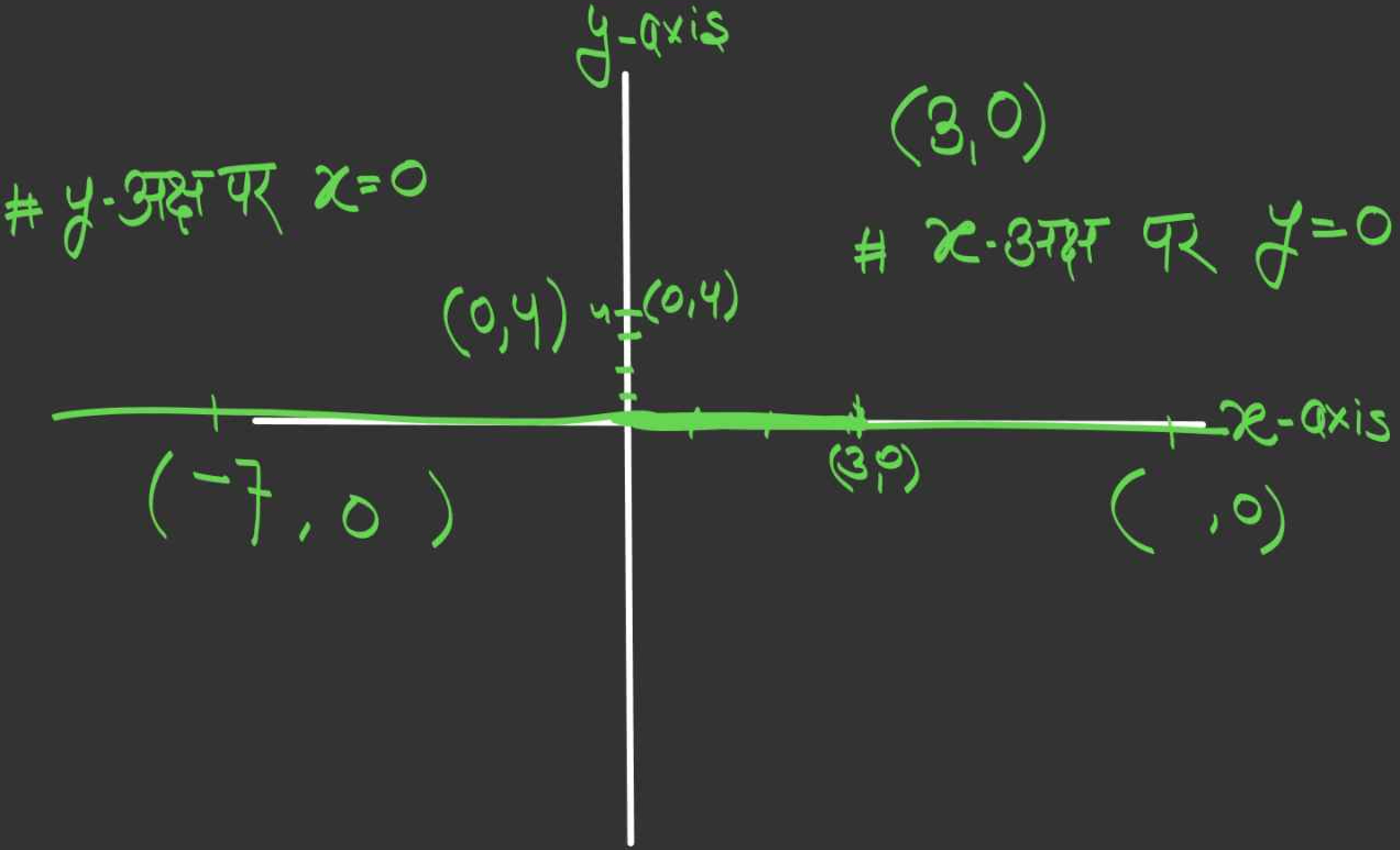
$$\sqrt{(x-0)^2+(y-0)^2}$$

$$\sqrt{x^2+y^2}$$

किन्ही दो बिन्दुओं (x_1, y_1) व (x_2, y_2) के बीच दूरी ⇒

Distance between any two points (x_1, y_1) & (x_2, y_2) ⇒

$$\Rightarrow \sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$$



y-axis
(3,0)
y-अक्ष पर x=0
x-अक्ष पर y=0
(0,4)
4
(0,4)
x-axis
(-7, 0)
(3,0)
(,0)

$\cos 45 = \frac{1}{\sqrt{2}}$, $\cos 90 = 0$

0° ✗

$\frac{1}{2} + \frac{1}{2} =$

$1 \neq 0$

1 x-अक्ष से बिंदु P(2,3) की दूरी है

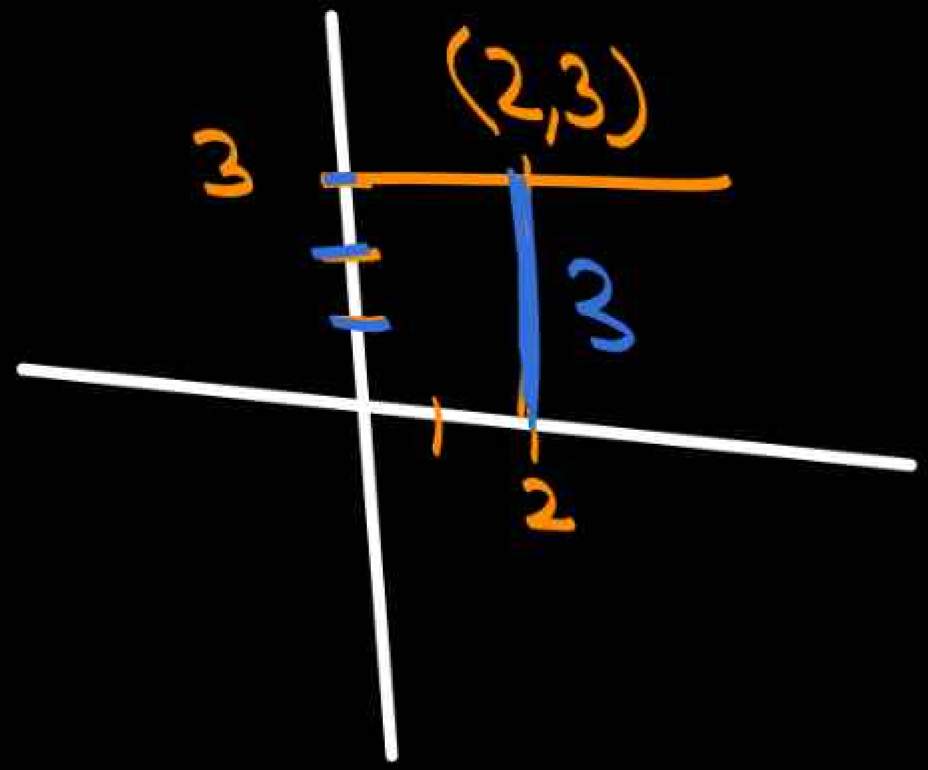
The distance of the point $P(2,3)$ from the x-axis is

(a) 2

(b) 3

(c) 1

(d) 5

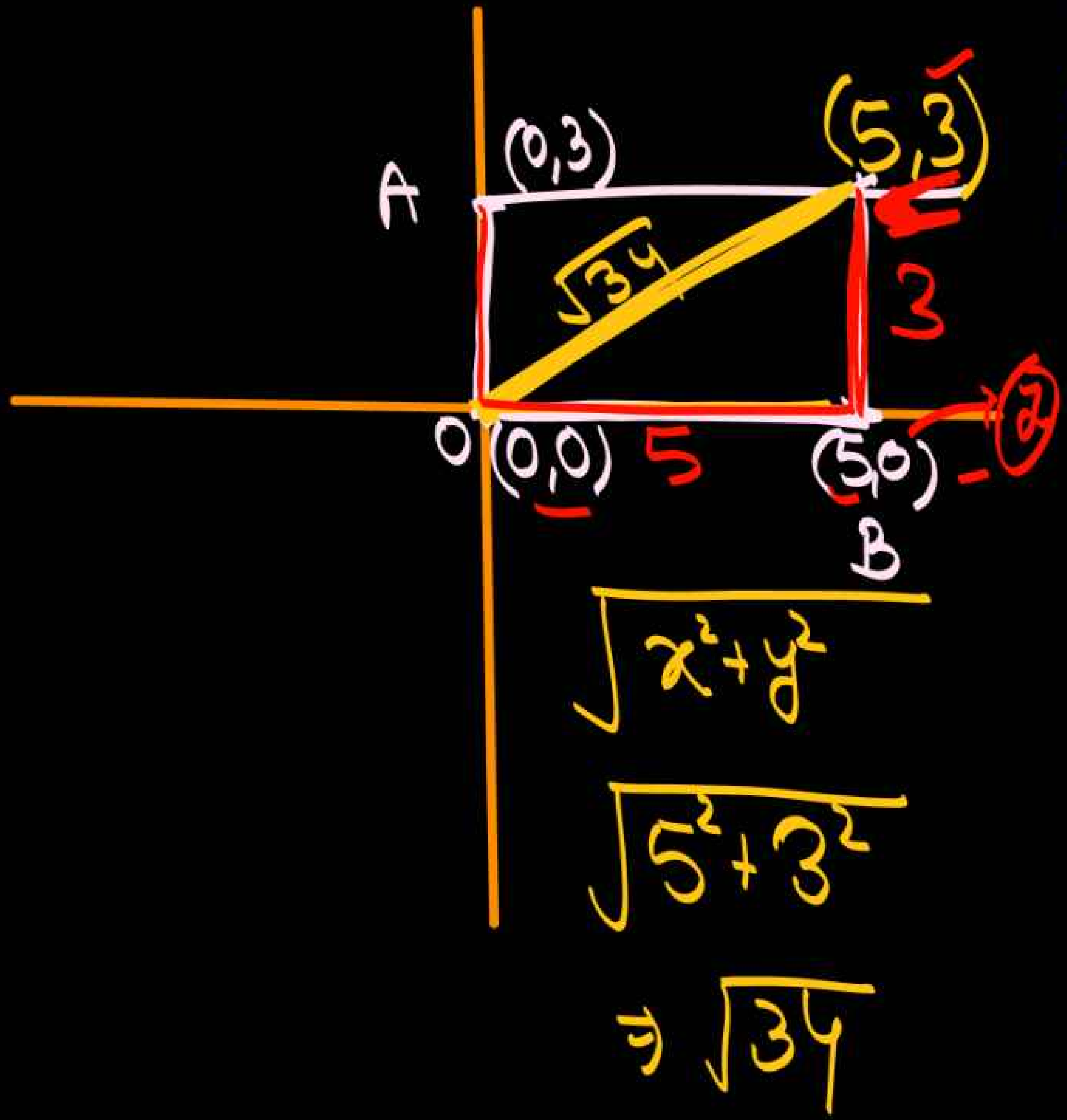


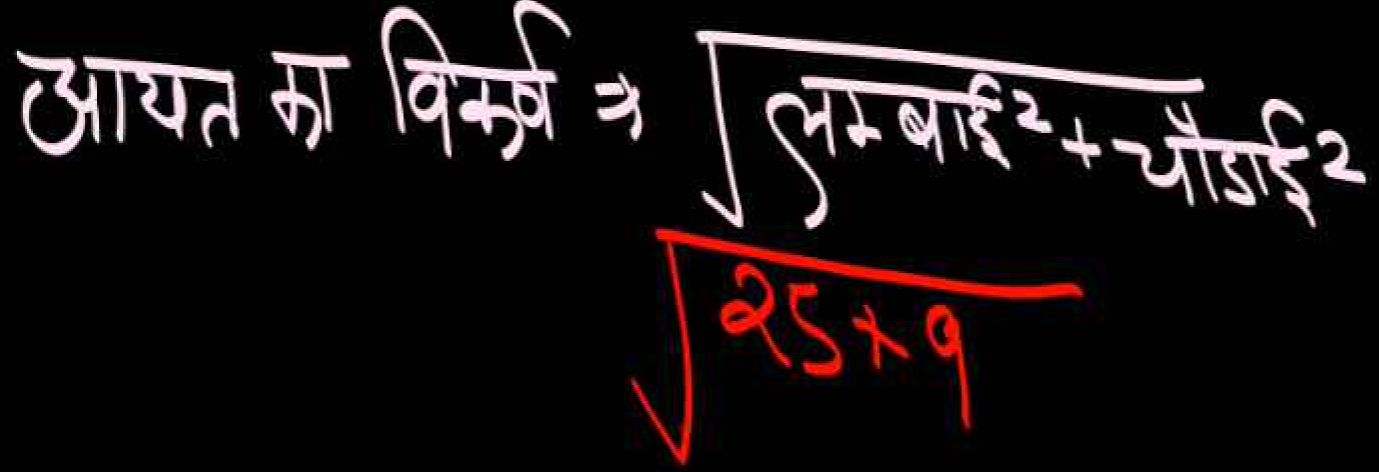
2 AOBC एक आयत है जिसके तीन शीर्ष A(0,3),O(0,0) और B(5,0) हैं। इसके विकर्ण की लंबाई है

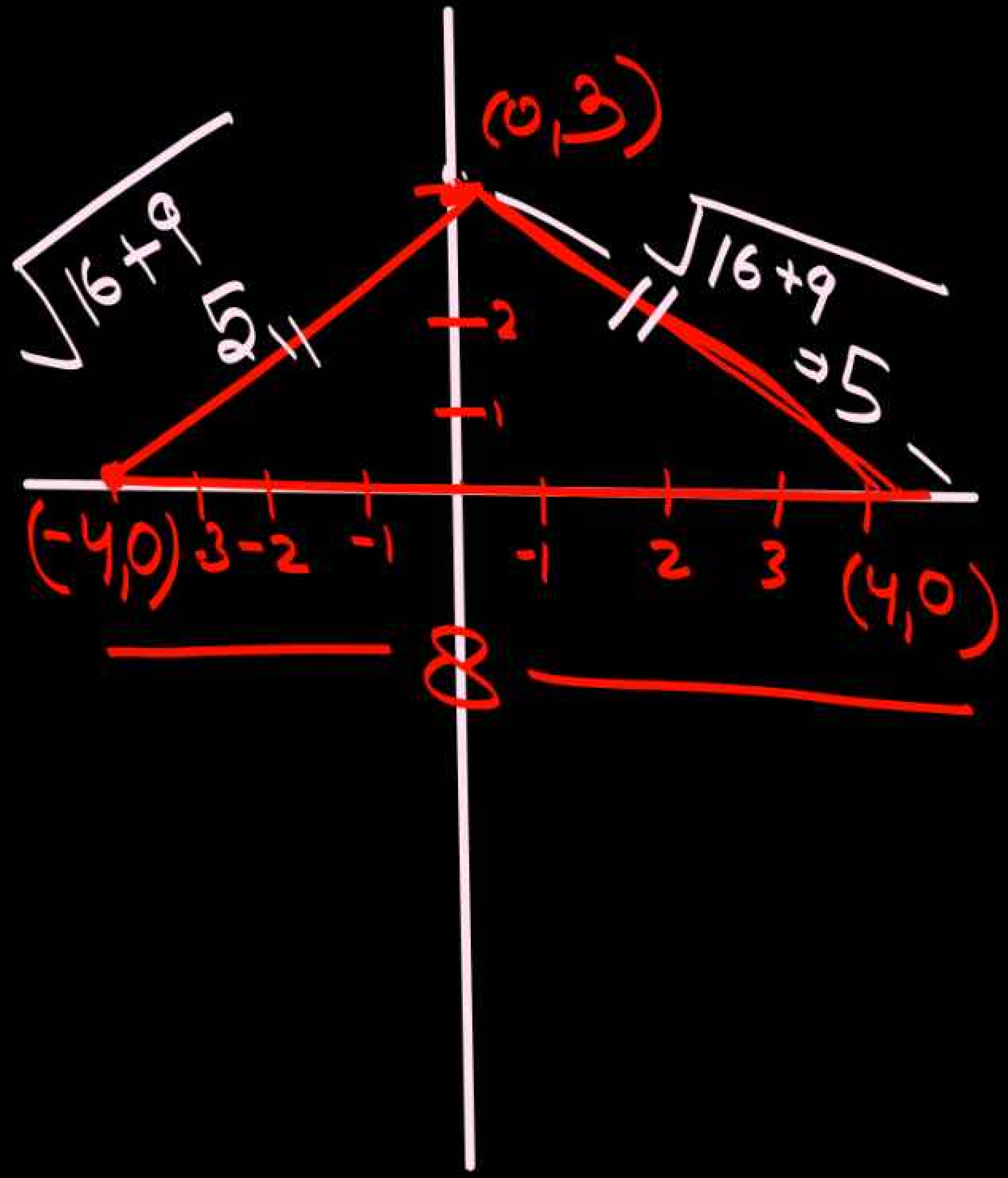
$AOBC$ is a rectangle whose three vertices are $A(0,3), O(0,0)$ and $B(5,0)$. The length of its diagonal is

(a) 5 (b) 3

(c) $\sqrt{34}$ (d) 4







3 बिंदु (-4,0),(4,0) और (0,3) a के शीर्ष हैं

x-अक्ष

The points $(-4, 0)$, $(4, 0)$ and $(0, 3)$ are the vertices of a

(a) right triangle (समकोण Δ)

(b) isosceles triangle (समद्विबाहु Δ)

(c) equilateral triangle (समबाहु Δ)

(d) scaline triangle (विषमबाहु Δ)

4 वह बिंदु जो बिंदु A(-2,-5) और B(2,5) को जोड़ने वाले रेखा खंड के लंबवत समद्विभाजक पर स्थित है

H.W.

The point which lies on the perpendicular bisector of the line segment joining the points $A(-2,-5)$ and $B(2,5)$ is

(a) $(0,0)$ (b) $(0,2)$

(c) $(2,0)$ (d) $(-2,0)$

8. यदि बिंदु (4,p) और (1,0) के बीच की दूरी 5 है, तो p का मान है

If the distance between the points $(4, p)$ and $(1, 0)$ is 5 , then the value of p is

(a) 4 only (b) ± 4

(c) -4 , only (d) 0

x_1, y_1 $(4, p)$ x_2, y_2 $(1, 0)$

$$\sqrt{(1-4)^2+(0-p)^2} = 5$$

$$\sqrt{(-3)^2+(-p)^2} = 5$$

$$(-3)^2+(-p)^2 = 5^2$$

$$9+p^2 = 25$$

$$p^2 = 25-9 \Rightarrow 16$$

$$p = \sqrt{16} \Rightarrow \pm 4$$

10 यदि बिंदु (2,-2) और (-1,x) के बीच की दूरी 5 है, तो x के मानों का योग है

If the distance between the points $(2,-2)$ and $(-1,x)$ is 5 , then the sum of the values of x is

(a) 4 (b) -4

(c) 8 (d) -8

x_1, y_1 $(2,-2)$ x_2, y_2 $(-1, x)$

$\sqrt{(-1-2)^2+(x-(-2))^2} = (5)$

$\left(\sqrt{9+(x+2)^2}\right)^2 = (5)^2$

$9+(x+2)^2 = 25$

$(x+2)^2 = 25-9 \Rightarrow 16$

$(x+2) = \sqrt{16} \Rightarrow \pm 4$

$x+2=4$, $x=2$; $x+2=-4$, $x=-6$

$2+(-6) \Rightarrow 2-6 = -4$

11 बिंदुओं $(\cos\theta, \sin\theta)$ और $(\sin\theta, -\cos\theta)$ के बीच की दूरी है

The distance between the points $(\cos\theta, \sin\theta)$ and $(\sin\theta, -\cos\theta)$ is

(a) $\sqrt{3}$ (b) $\sqrt{2}$

(c) 2 (d) 1

x_1, y_1 ; x_2, y_2

$(\cos\theta, \sin\theta)$, $(\sin\theta, -\cos\theta)$

$d = \sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$

$\Rightarrow \sqrt{(\sin\theta-\cos\theta)^2+(-\cos\theta-\sin\theta)^2}$

$\sqrt{(\sin\theta-\cos\theta)^2+(\cos\theta+\sin\theta)^2}$

$\sqrt{2(\sin^2\theta+\cos^2\theta)}$

$\sqrt{2}$

$(a-b)^2+(a+b)^2$

$\Rightarrow 2(a^2+b^2)$

12. बिंदुओं (aco s 25°, 0) और (0, aco s 65°) के बीच की दूरी है

The distance between the points $(a\cos 25°, 0)$ and $(0, a\cos 65°)$ is

(a) a
(b) $2a$
(c) $3a$
(d) none of these

$(a\cos 25°, 0), (0, a\cos 65°)$ — x_1, y_1, x_2, y_2

$d = \sqrt{(x_2-x_1)^2 + (y_2-y_1)^2}$

$\Rightarrow \sqrt{(0-a\cos 25)^2 + (a\cos 65-0)^2}$

$\Rightarrow \sqrt{a^2\cos^2 25 + a^2\cos^2 65°}$

$\Rightarrow \sqrt{a^2(\cos^2 25 + \cos^2 65)}$

$\Rightarrow \sqrt{a^2(\cos^2 25 + \cos^2(90-25))}$

$\Rightarrow \sqrt{a^2(\cos^2 25 + \sin^2 25)}$

$\sqrt{a^2} \Rightarrow a$

* $\cos^2 a + \cos^2 b = 1$, $a + b = 90°$