



Orienting Yourself: The Use of Coordinates

Lecture - 02

CLASS-9TH

MATHS

UDAY Sir

Physics Wallah

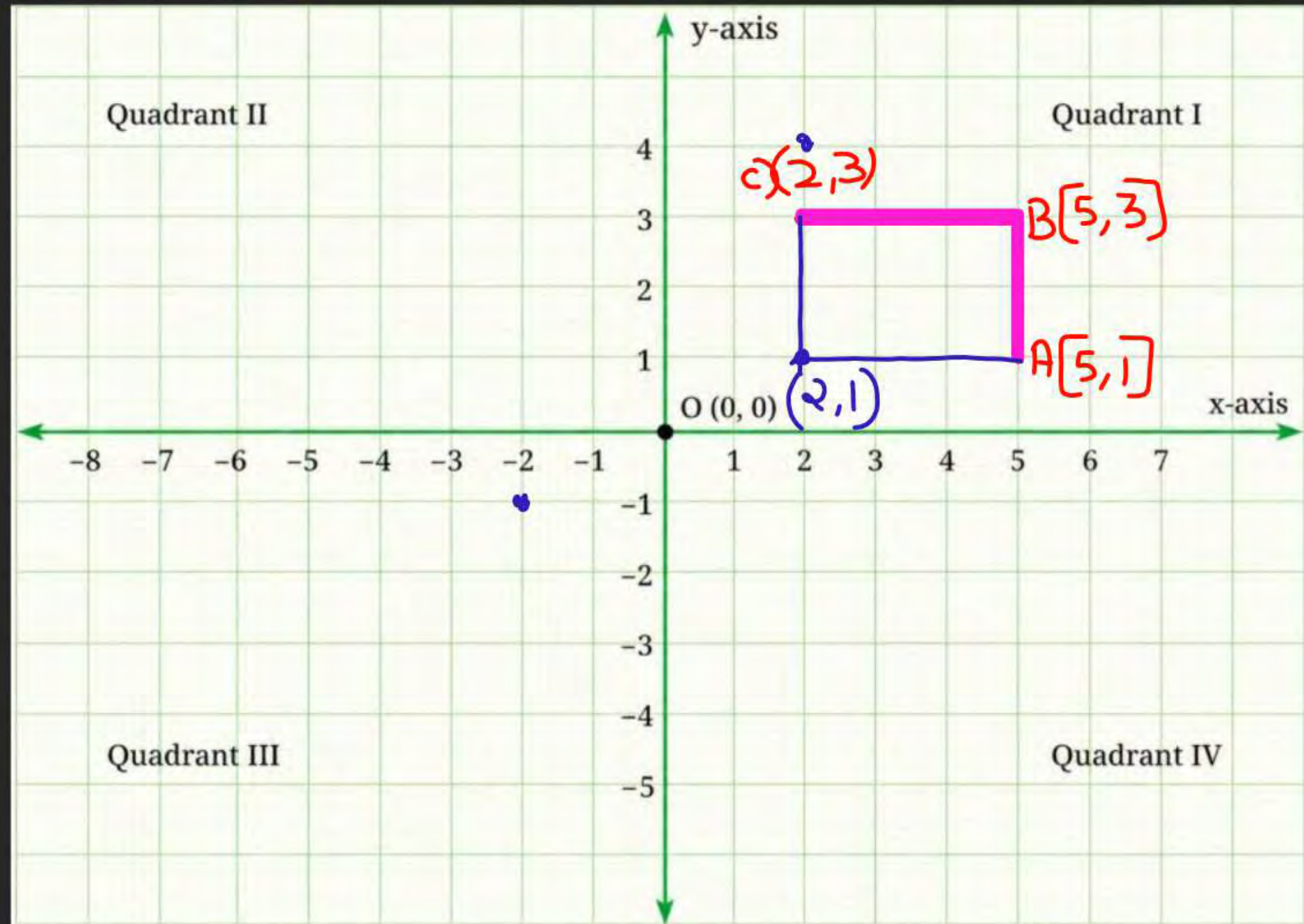
Topics To Be Covered

- ① Cartesian Plane
- ② Quadrants
- ③ Vertical & Horizontal Distance b/w 2 points

Cartesian Plane



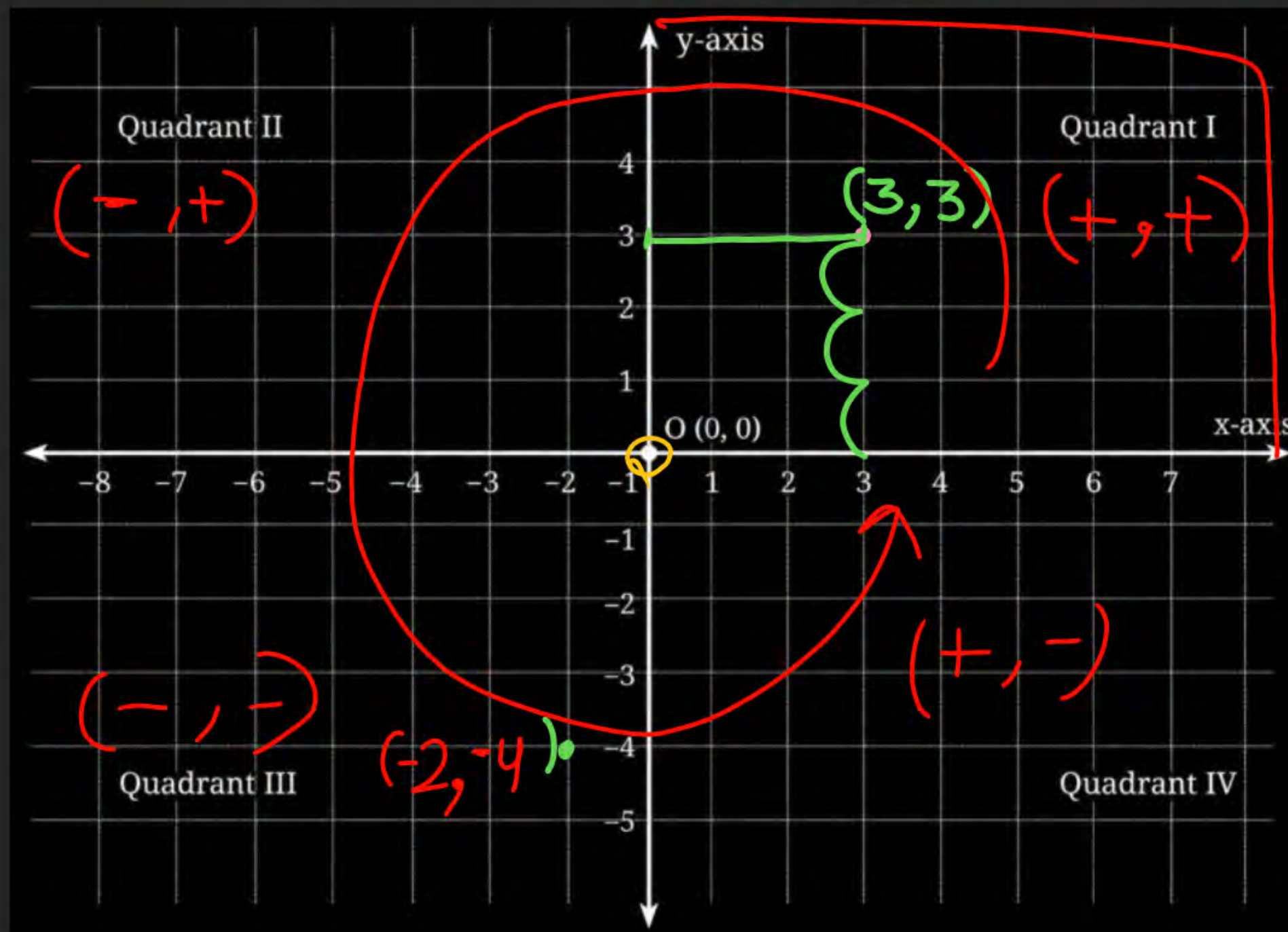
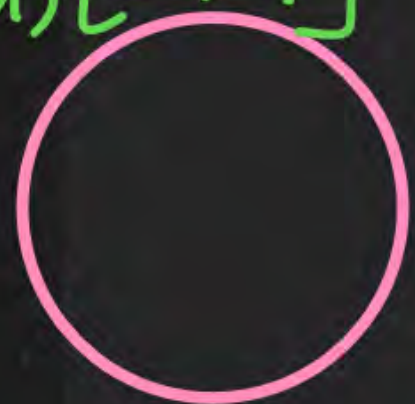
A] (5, 1)
B] (5, 3)
C] (2, 3)
D] ?



a) (2, 4)
b) (2, 1)
c) (3, 1)
d) (-2, -1)

Cartesian Plane

- a) $(-3, 4)$
- b) $(-4, -2)$
- c) $[-2, -4]$
- d) $[2, 4]$



2-D

$x \rightarrow$ Distance from y-axis

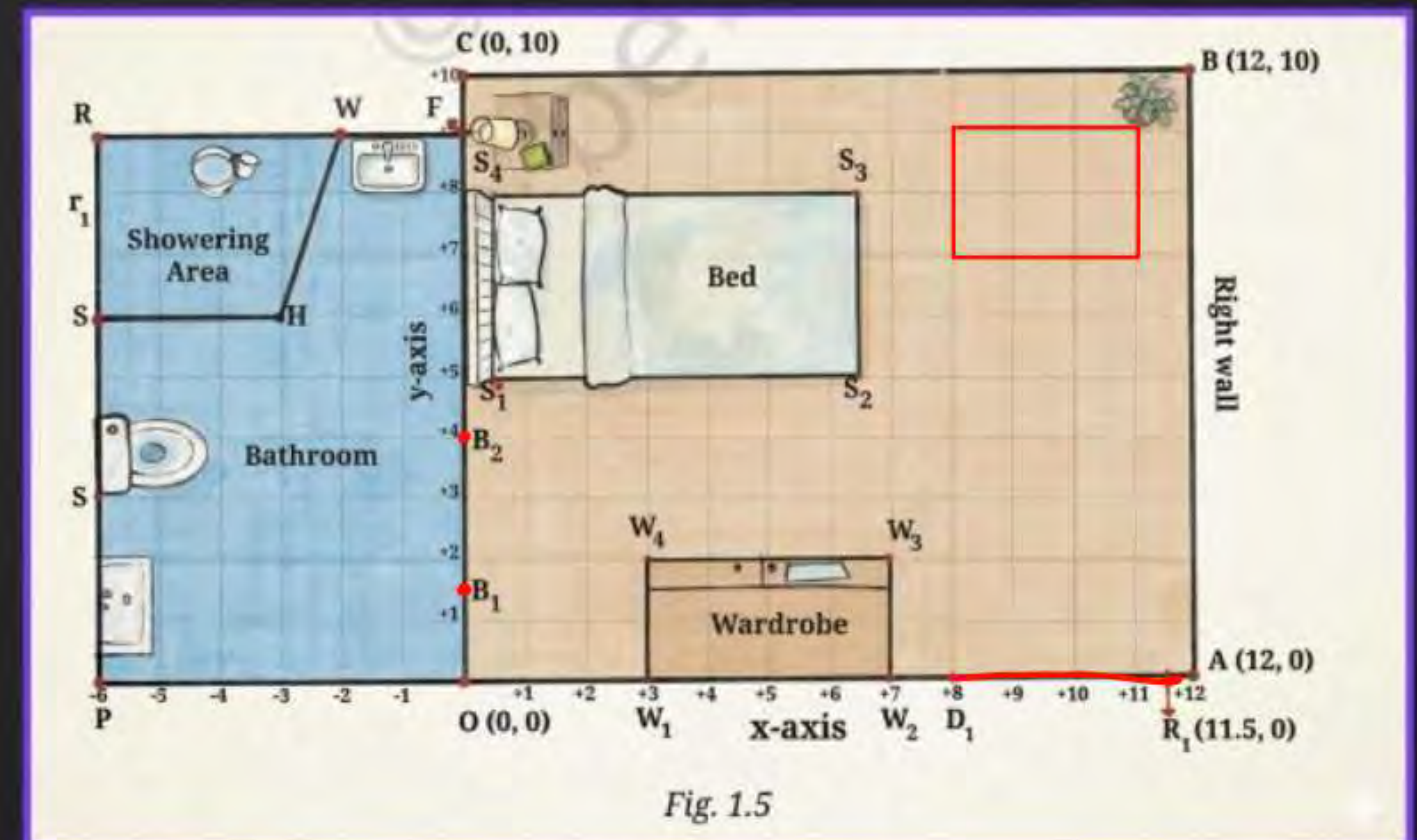
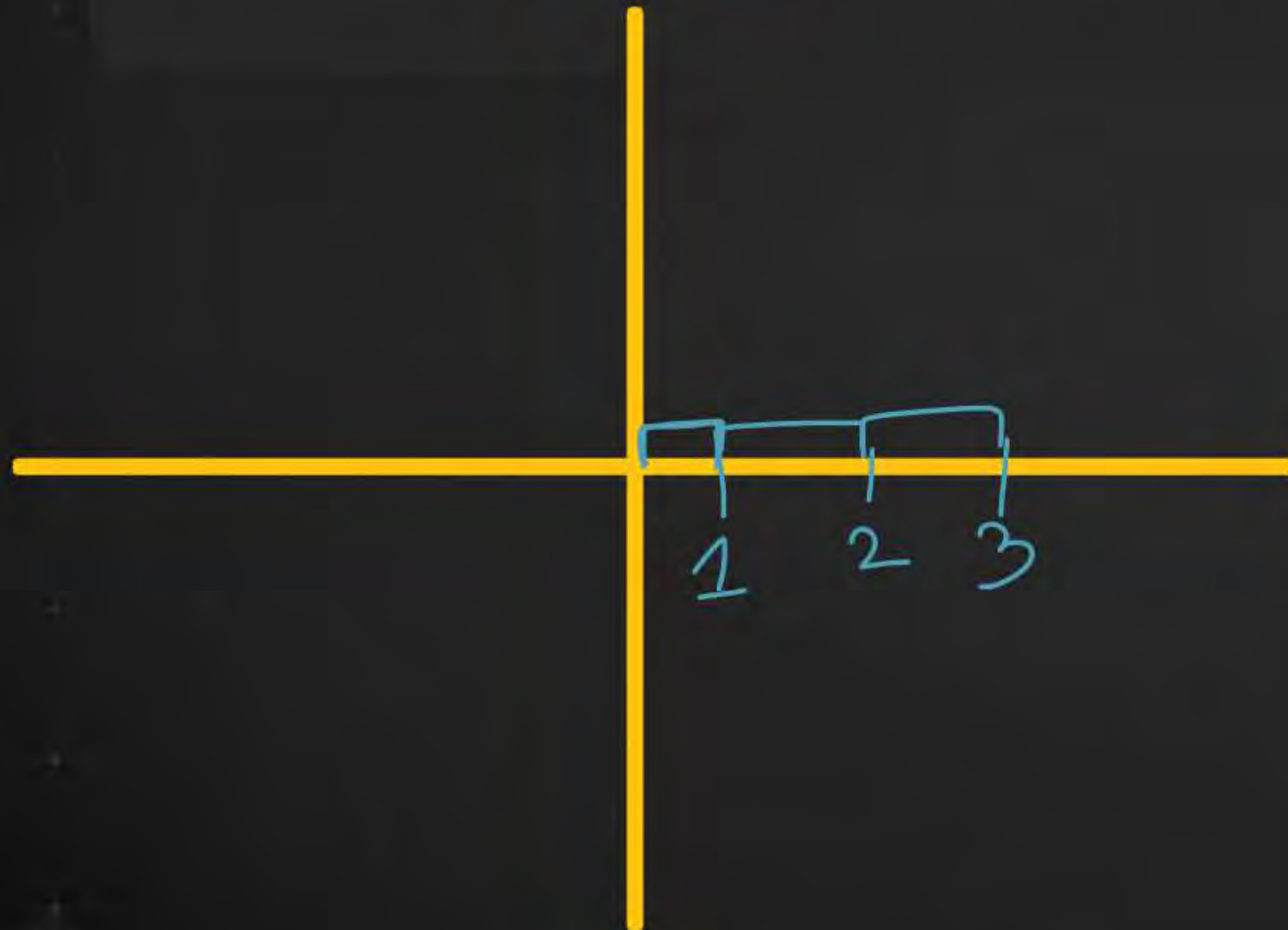
QUESTION

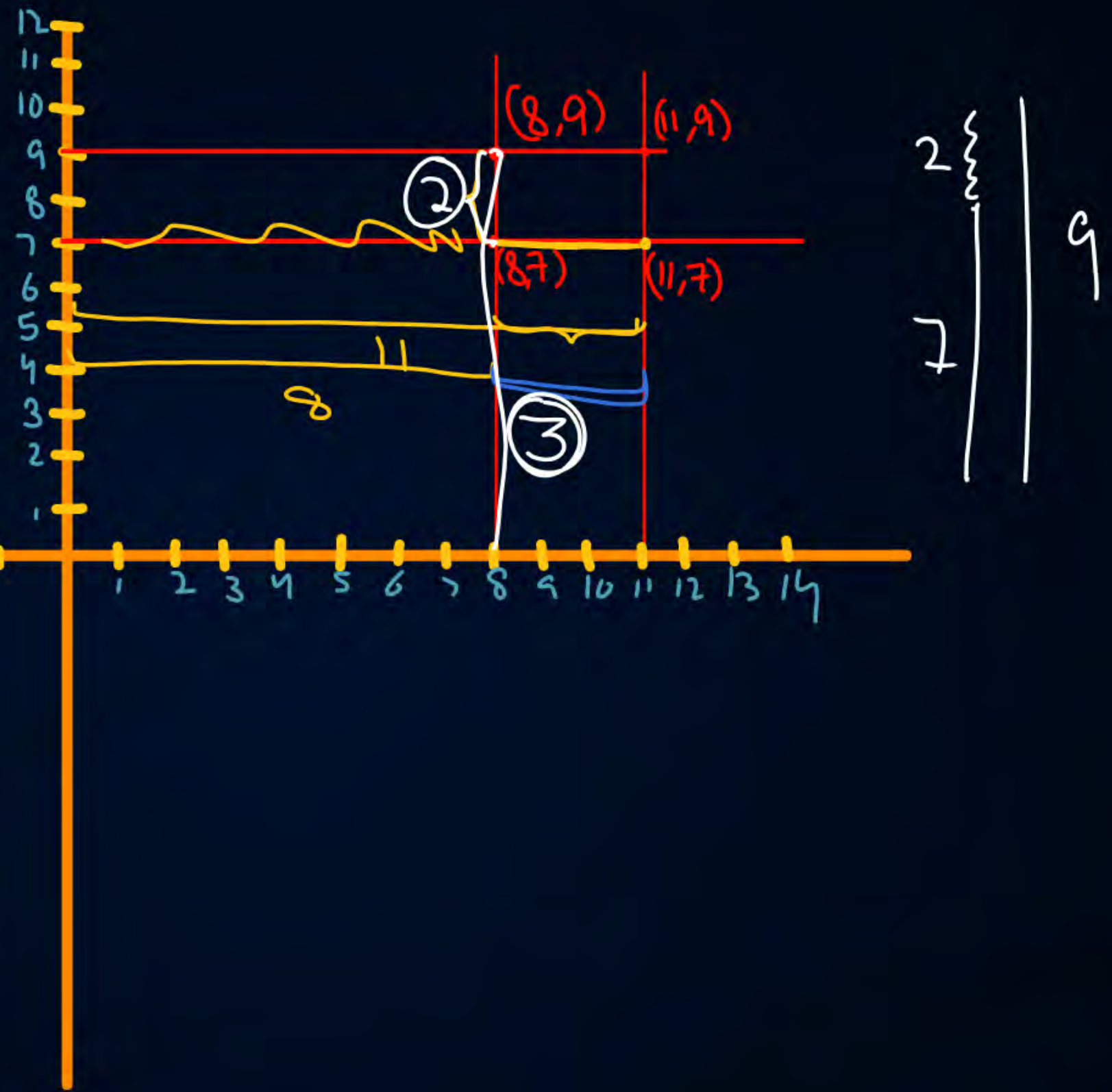
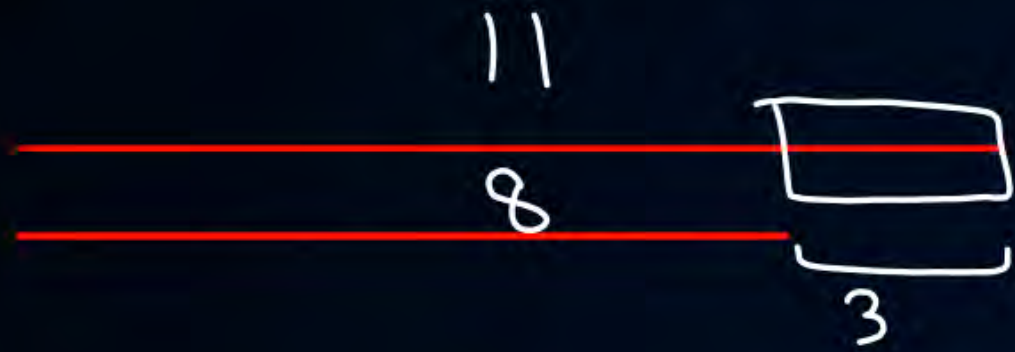
What are the x-coordinate and y-coordinate of the point of intersection of the two axes?

origin $\rightarrow [0, 0]$
O

QUESTION

On a graph sheet, mark the x-axis and y-axis and the origin O. Mark points from $(-7, 0)$ to $(13, 0)$ on the x-axis and from $(0, -15)$ to $(0, 12)$ on the y-axis. (Use the scale 1cm = 1unit). Using Fig. 1.5, answer the given questions.







QUESTION

Place Reiaan's rectangular study table with three of its feet at the points $(8, 9)$, $(11, 9)$ and $(11, 7)$.

- Where will the fourth foot of the table be? $[8, 7]$
- Is this a good spot for the table? ✓
- What is the width of the table? The length? Can you make out the height of the table?

2 cm

3 cm

NO

QUESTION

If the bathroom door has a hinge at B_1 and opens into the bedroom, will it hit the wardrobe? Are there any changes you would suggest if the door is made wider?

→ No ✓✓

QUESTION

Look at Reiaan's bathroom.

- HW • What are the coordinates of the four corners O, F, R, and P of the bathroom?
- HW • What is the shape of the showering area SHWR in Reiaan's bathroom? Write the coordinates of the four corners.
- HW • Mark off a 3 ft x 2 ft space for the washbasin and a 2 ft x 3 ft space for the toilet. Write the coordinates of the corners of these spaces.

QUESTION

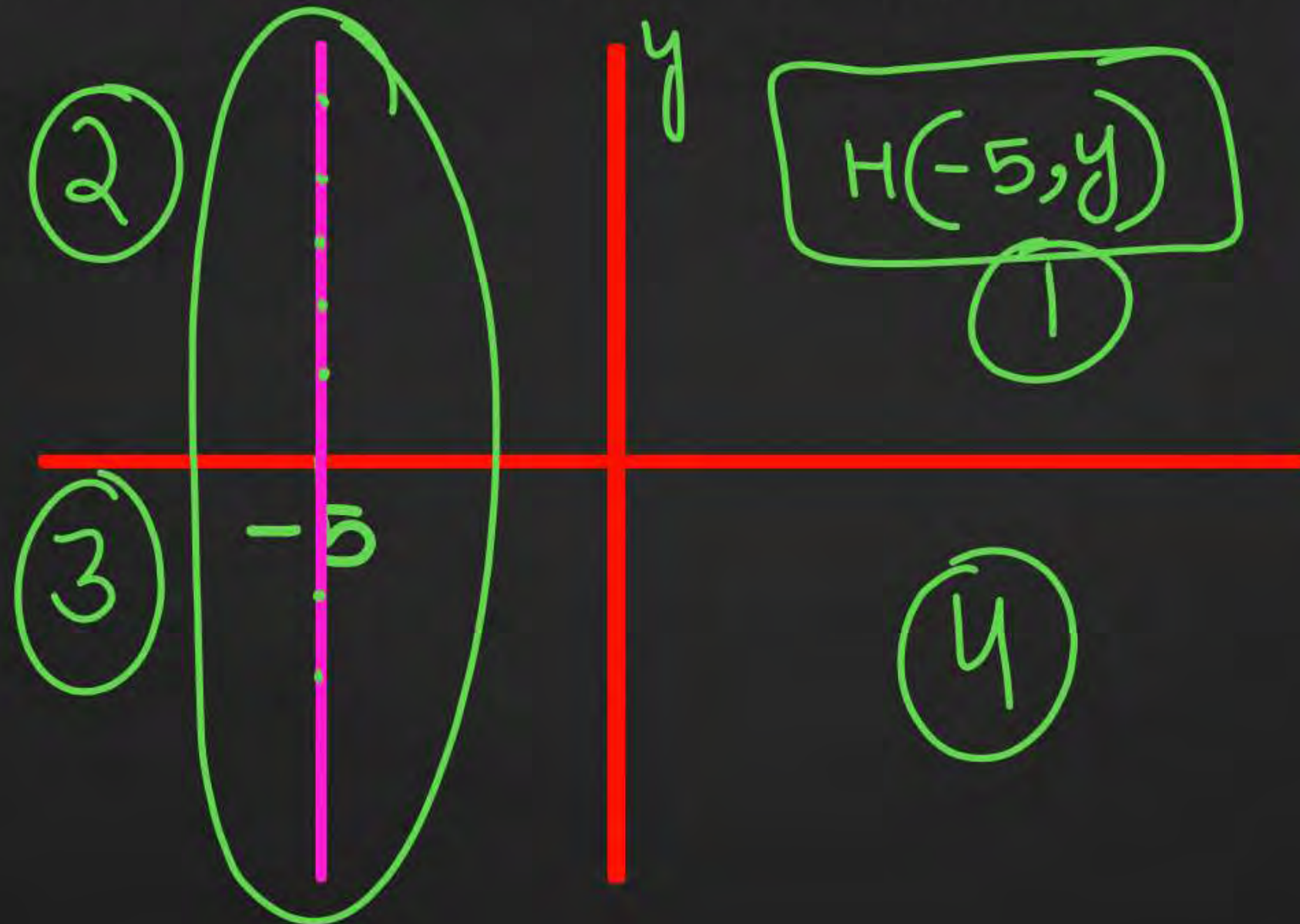
Other rooms in the house:

- Reiaan's room door leads from the dining room which has the length 18 ft and width 15 ft. The length of the dining room extends from point P to point A. Sketch the dining room and mark the coordinates of its corners.
- Place a rectangular 5 ft x 3 ft dining table precisely in the centre of the dining room. Write down the coordinates of the feet of the table.

QUESTION

Point W has x-coordinate equal to -5. Can you predict the coordinates of point H which is on the line through W parallel to the y-axis? Which quadrants can H lie in?

$W[-5, y]$



$(2, 3 \text{ Quad})$

you are
build to fight
the Storms
Don't let
Rain Slow you
down

Thank
you