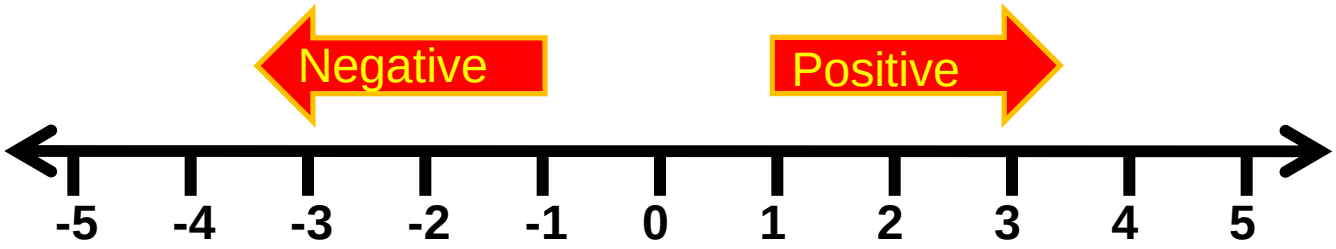
6.5

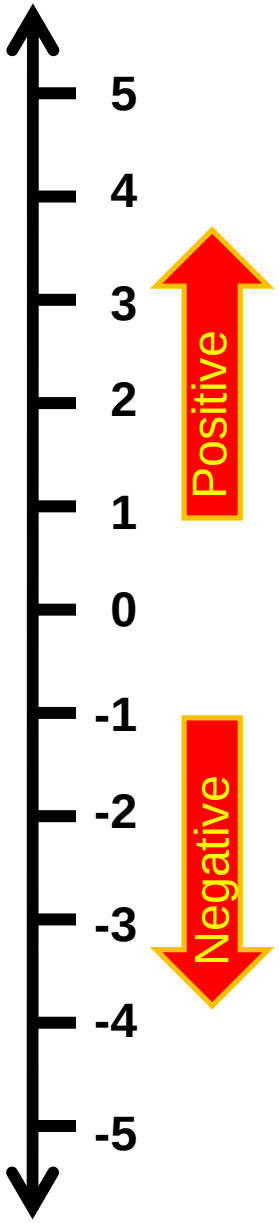
The Coordinate Plane

Essential Question

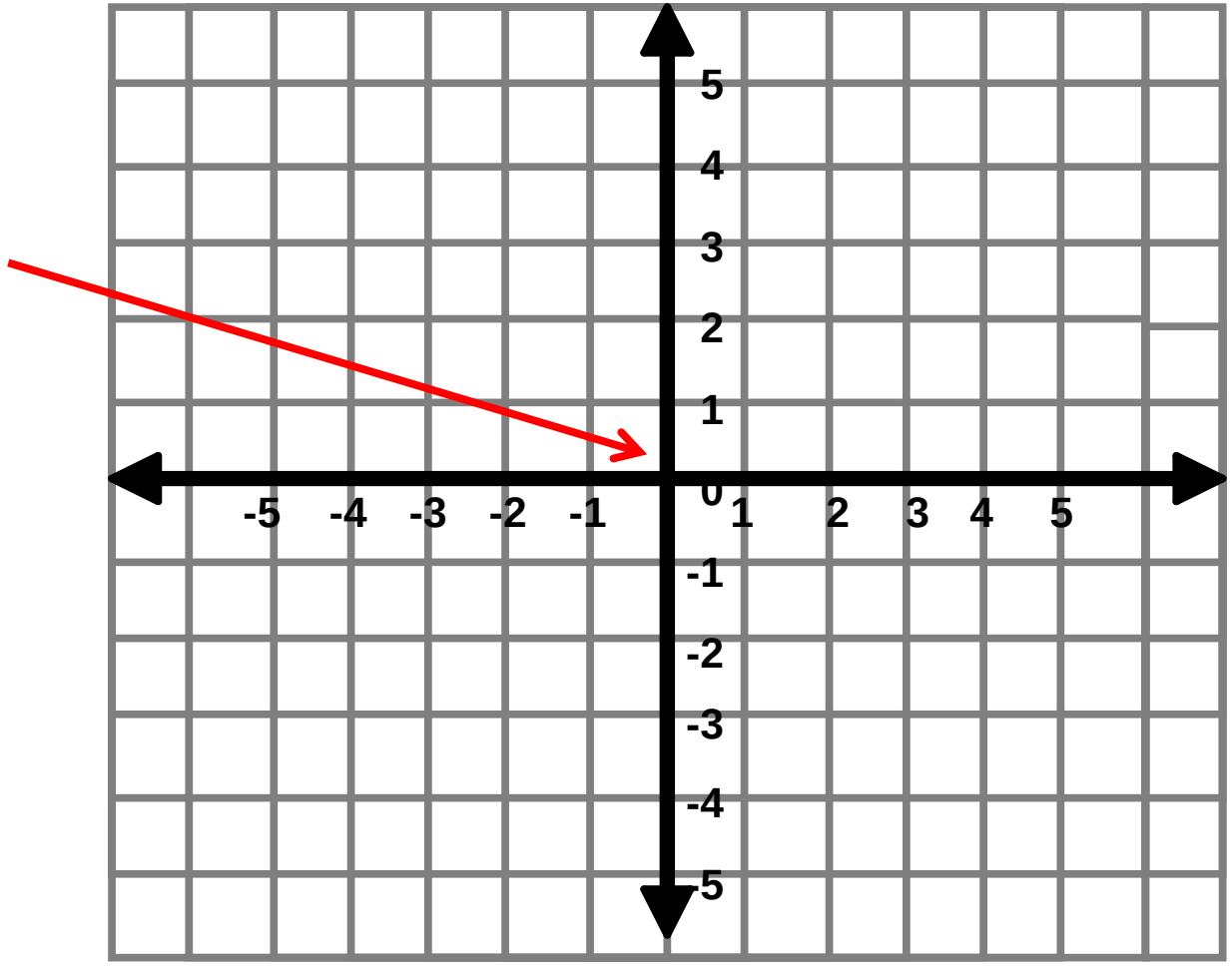
How can you graph and locate points that contain negative numbers in a coordinate plane?



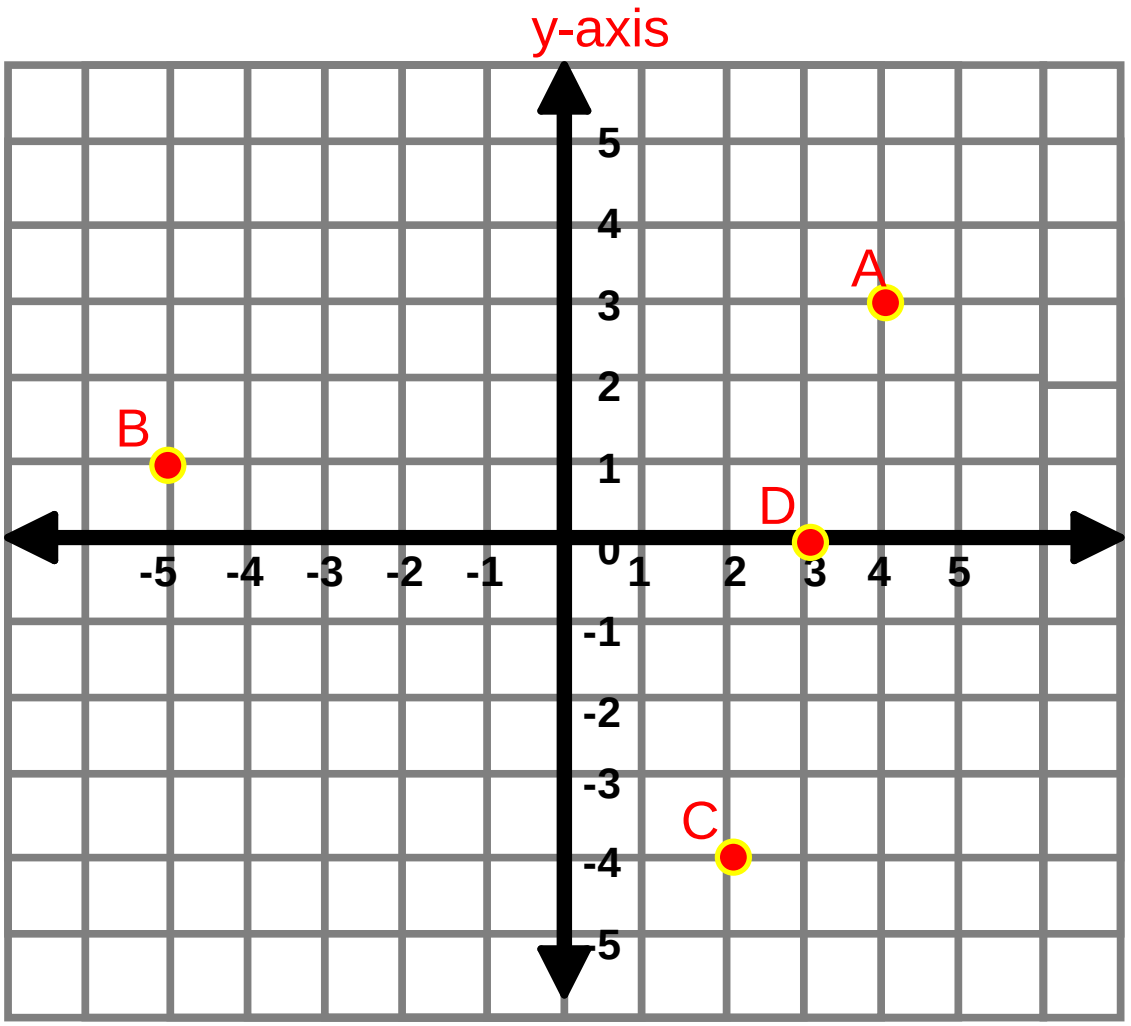
NUMBER LINES



COORDINATE PLANE



COORDINATES



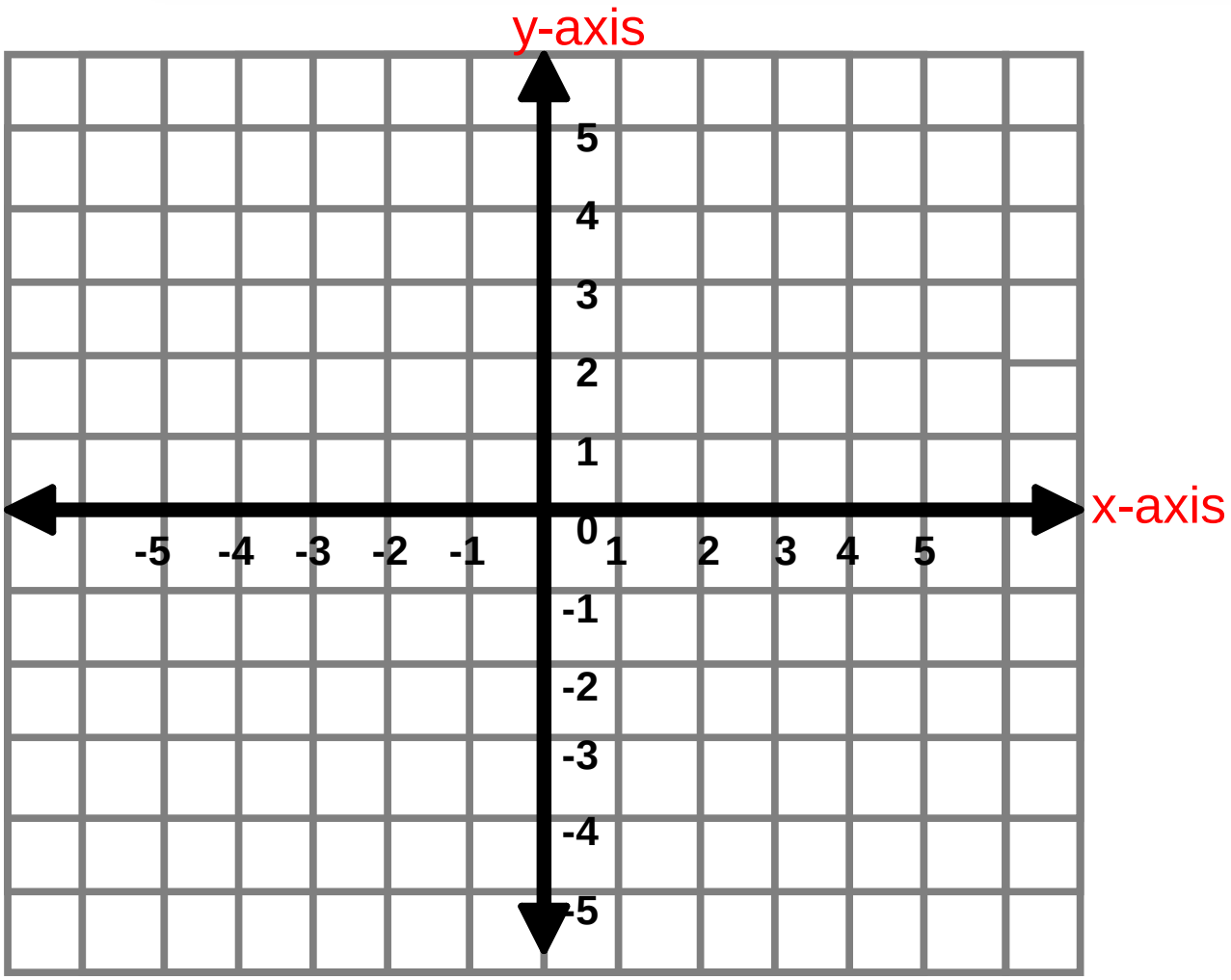
A(,)

B(,)

C(,)

D(,)

PLOTTING POINTS



A(5,2)
B(-3,-4)
C(-1,5)
D(3,-5)
E(4,6)
F(0,0)
G(4,0)
H(0,-3)

PRACTICE MAKES *PURR*-FECT™

Write the ordered pair that represents the point in the coordinate plane.

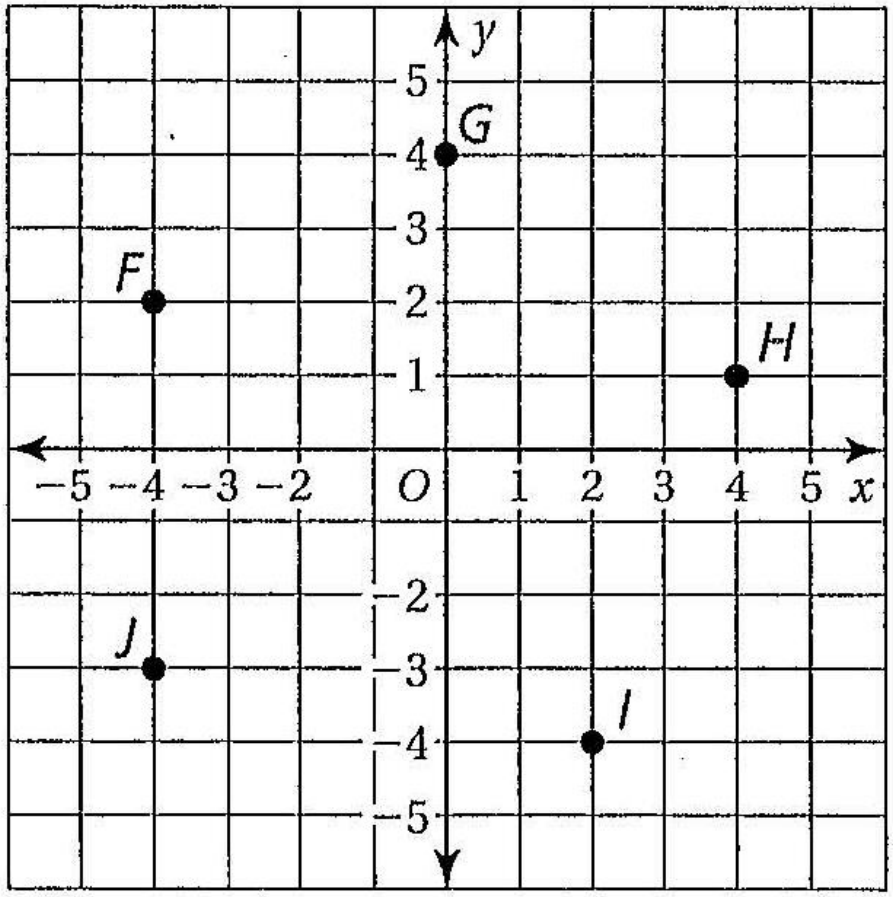
6. F _____

7. G _____

8. H _____

9. I _____

10. J _____



PRACTICE MAKES *PURR*-FECT™

Plot the ordered pair in the coordinate plane.
Name the quadrant for the point.

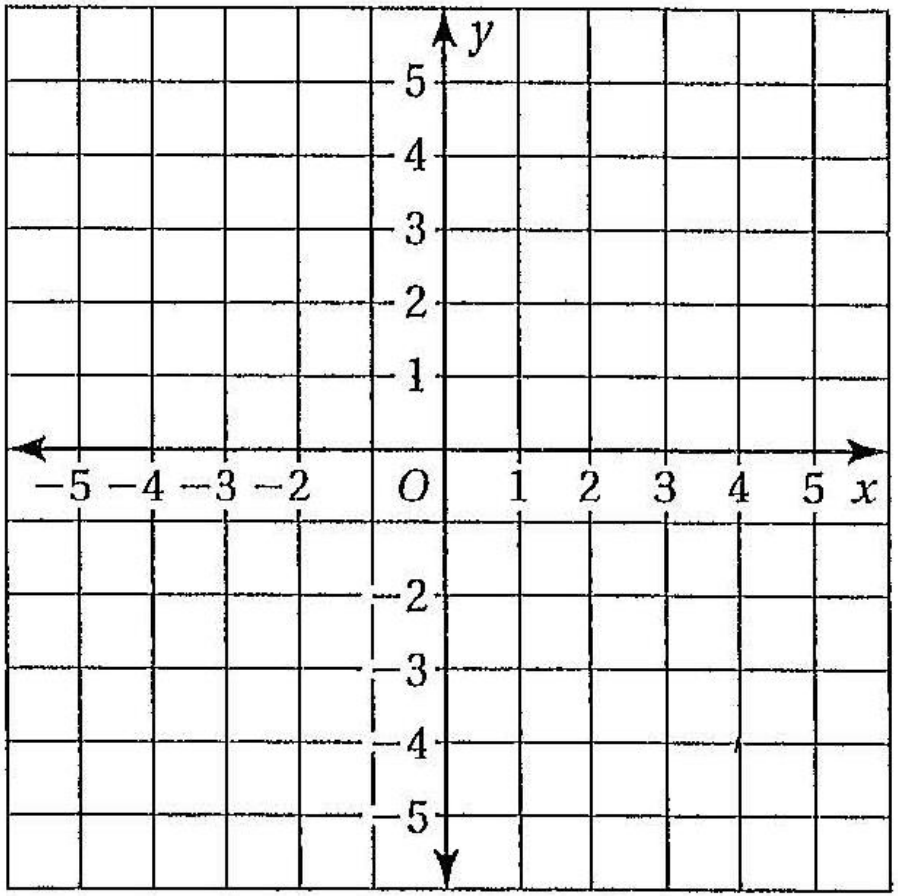
11. $K(-3, 5)$ _____

12. $L(-3, 0)$ _____

13. $M(2, 5)$ _____

14. $N(4, -2)$ _____

15. $P(-2, -4)$ _____

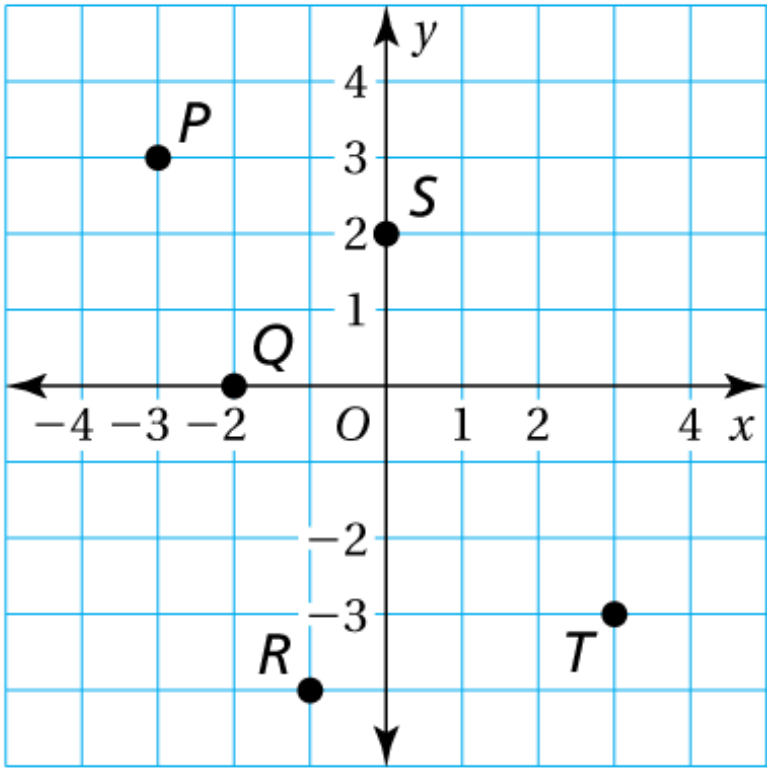


Practice

11) Which ordered pair corresponds to point T?

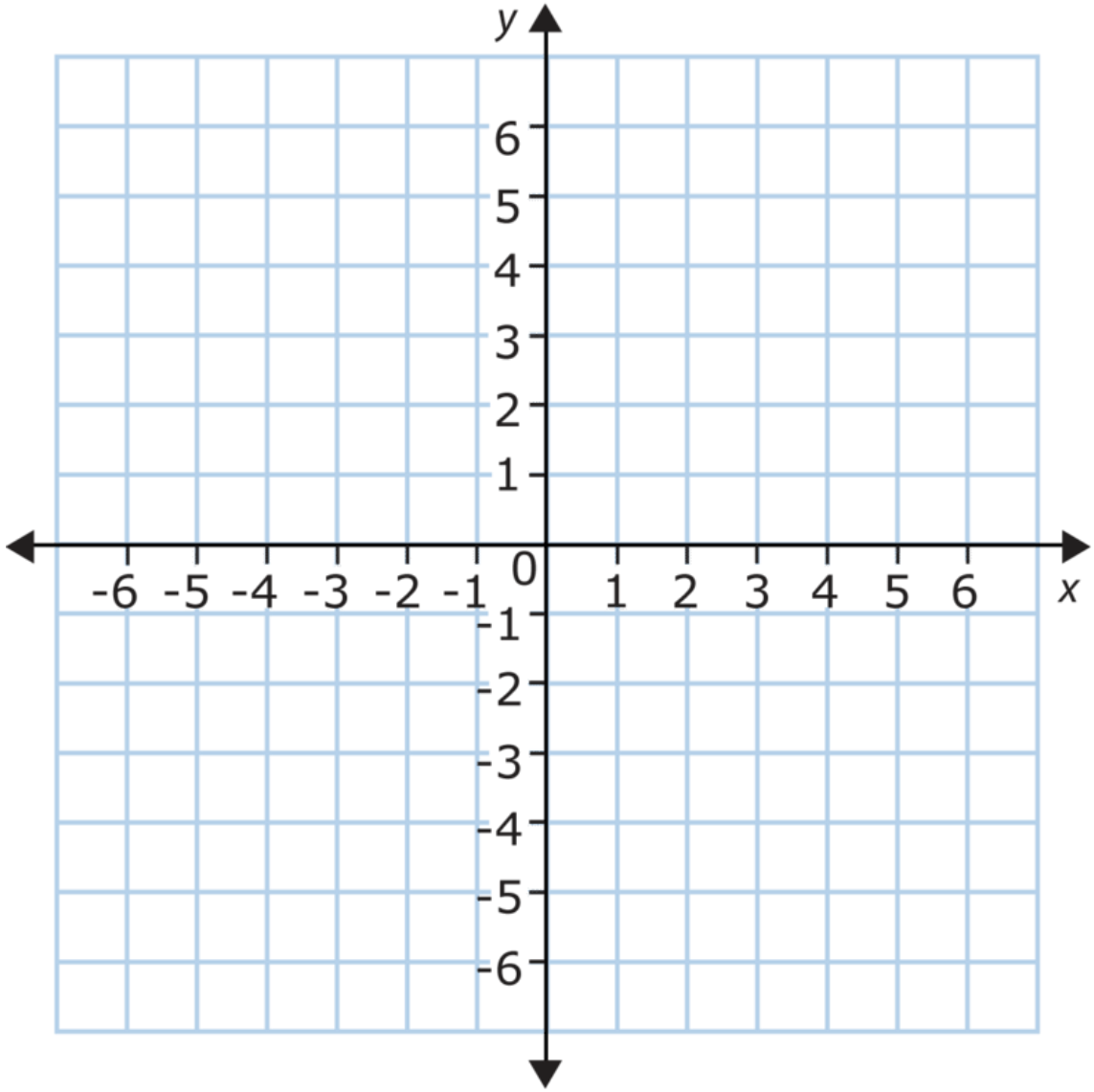
(A) $(-3, -3)$ (B) $(-3, 3)$

(C) $(3, -3)$ (D) $(3, 3)$



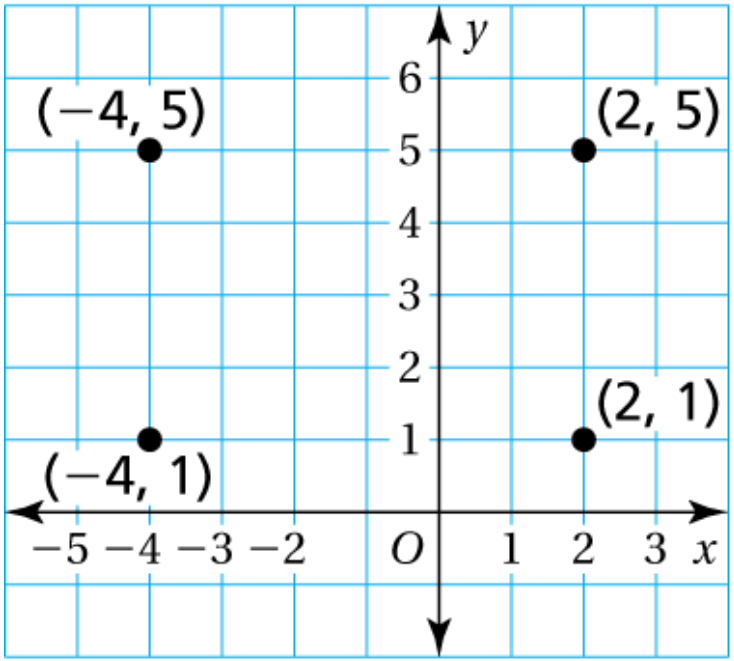
Practice

12) **Plot (a) $(-2, 3)$ and (b) $(0, -3.5)$ in a coordinate plane. Describe the location of each point.**



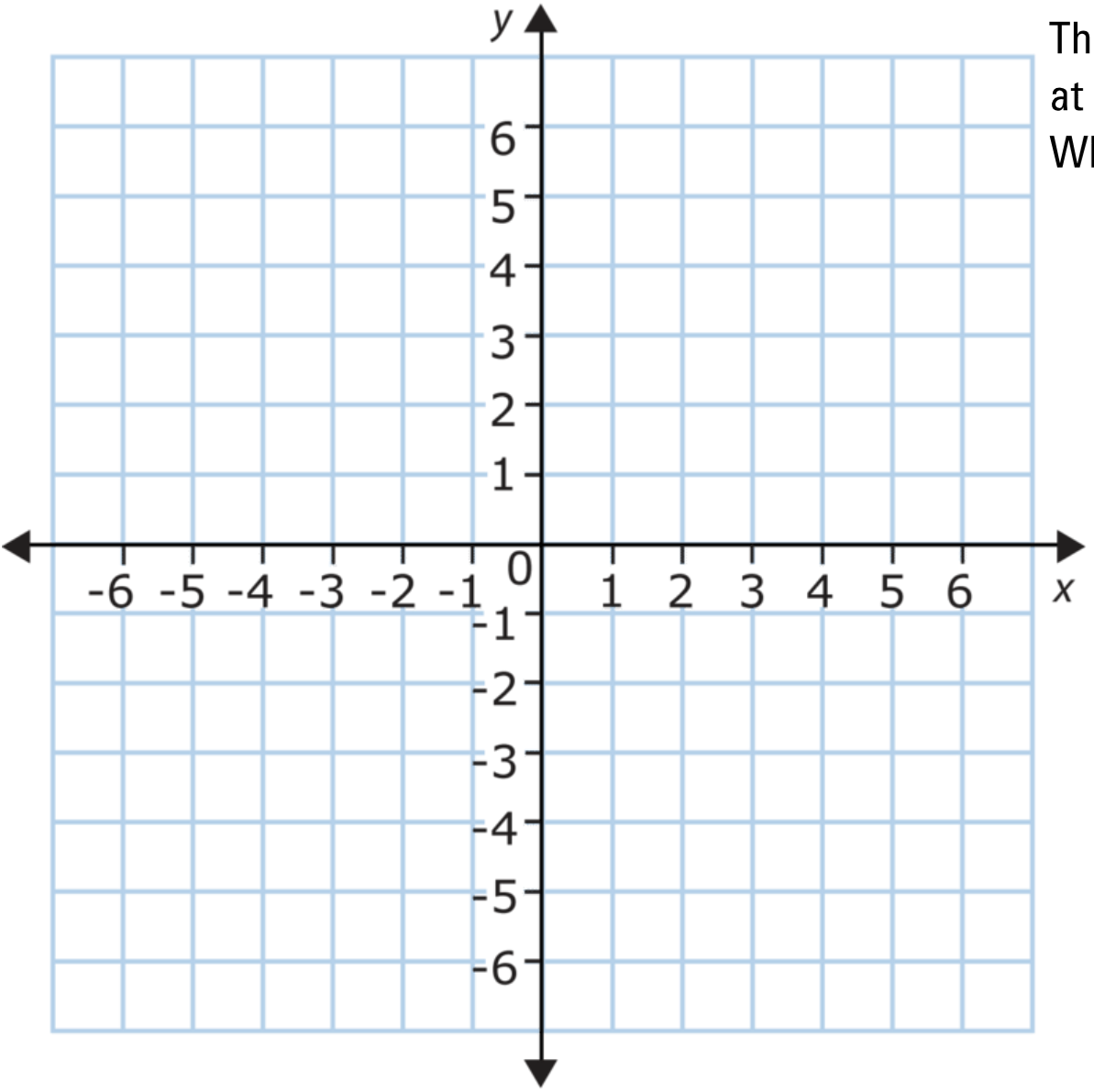
Practice

13) **An *archaeologist* divides an area using a coordinate plane in which each unit represents 1 meter. The corners of a secret chamber are shown in the graph. What are the dimensions of the secret chamber?**



Practice

14)



An interior designer maps out a room design using a coordinate plane in which each unit represents 1 yard. The corners of the room are located at $(-3, 2)$, $(5, 2)$, $(5, -3)$, and $(-3, -3)$. What are the dimensions of the room?

Real-Life Application

A blizzard hits a town at midnight. The table shows the hourly temperatures from midnight to 8:00 A.M.

Hours after Midnight, x	0	1	2	3	4	5	6	7	8
Temperature, y	7°F	5°F	3°F	0°F	−1°F	−4°F	−5°F	−2°F	2°F

a. Display the data in a line graph.

b. Make three observations