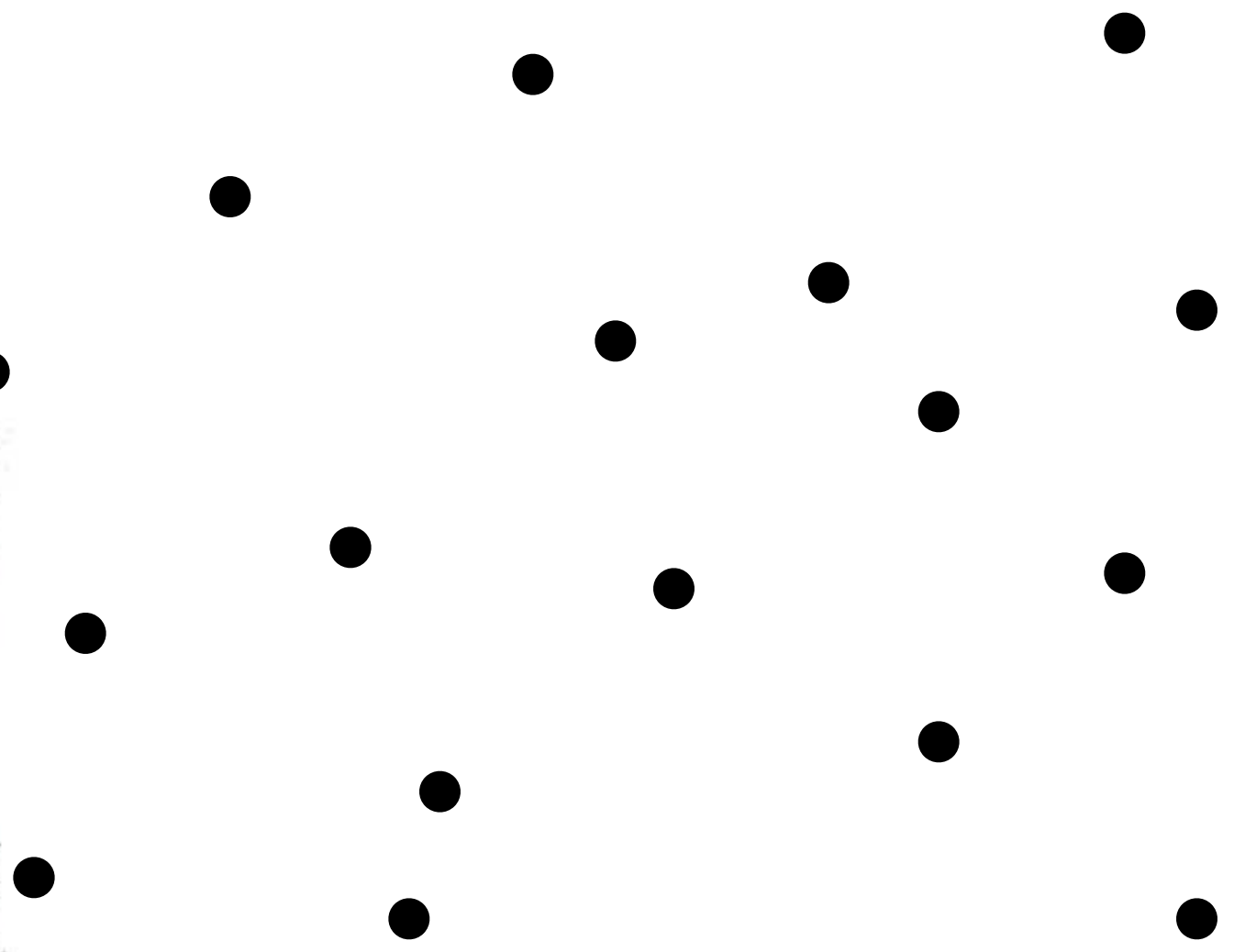


1.5 The Coordinate Plane & Reflections

Objective: To correctly reflect ordered pairs over an axis







A



B



E



F



G



H



J



K



L



X



M



N



P



Q



R



V



U



T

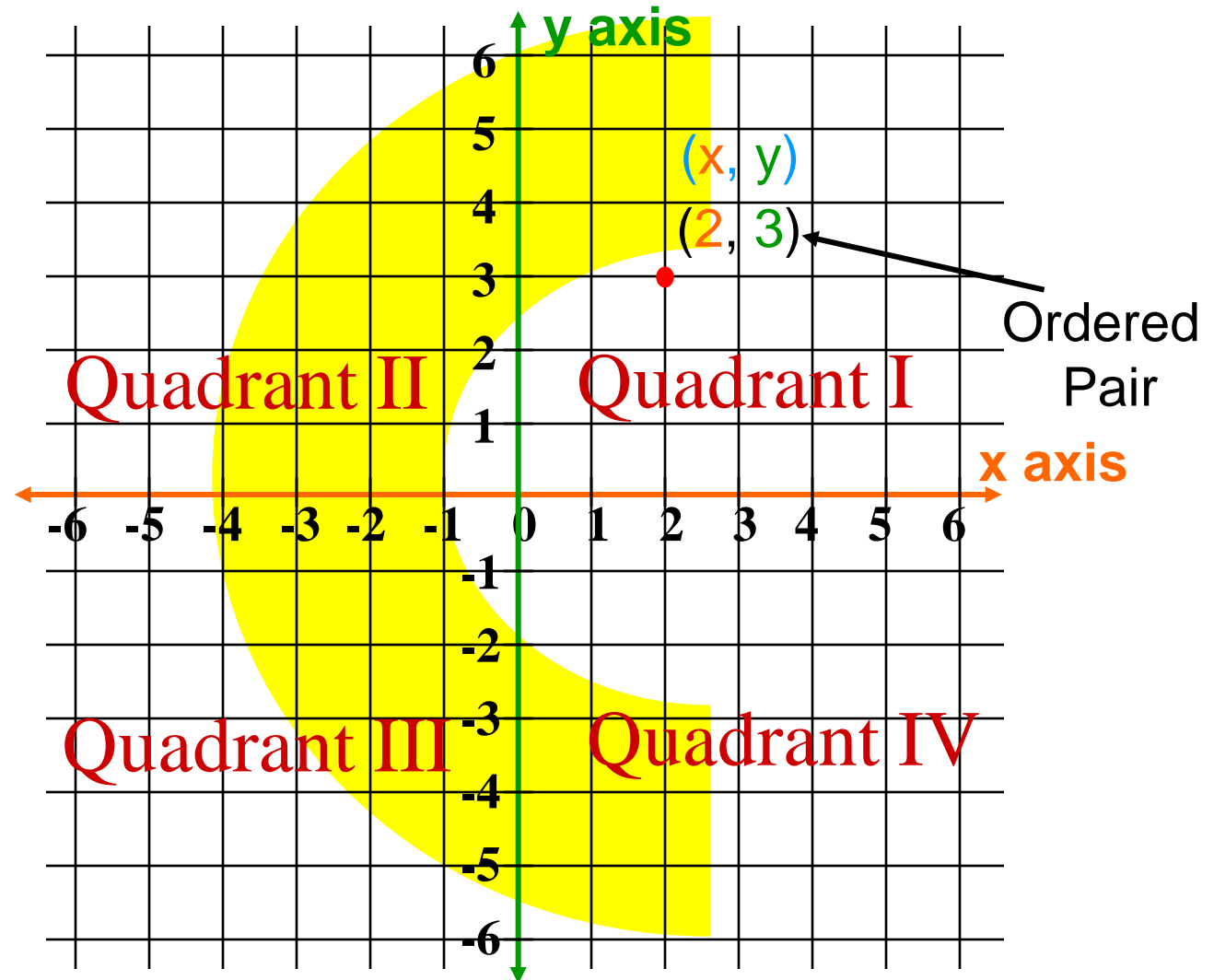


S



Coordinate Plane

Coordinate Plane – is formed by placing two number lines that intersect at a right angle



Ordered Pair

Ordered Pair – each point in the coordinate graph

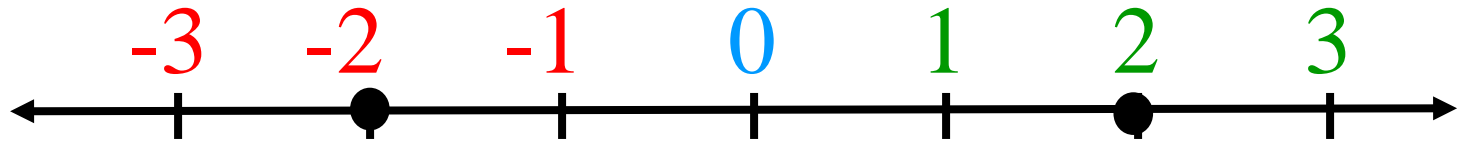
(X, Y)

$(\leftarrow, \updownarrow)$

x-coordinate – the **first** value in the ordered pair that tells you to **move LEFT or RIGHT**

y-coordinate – the **second** value in the ordered pair that tells you to **move UP or DOWN**

Opposites



Opposite of 2 = -2

2 and -2 are the same
distance from zero (absolute value)

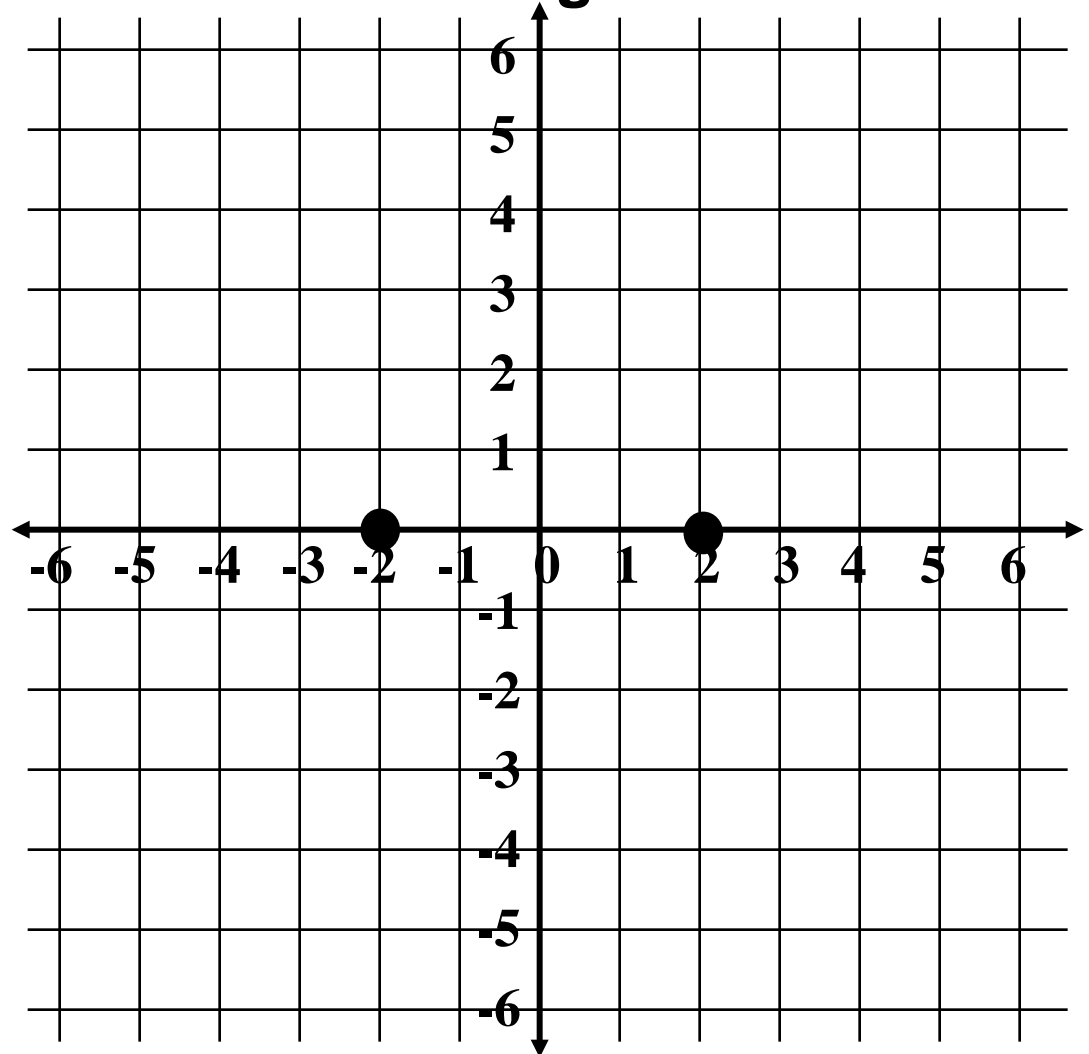
Reflections over the y-axis

Reflections over the y-axis are the same distance from the y-axis, just like the number line.

When reflecting over the y-axis, the y coordinate does not change!!!

Reflect $(2,0)$
over the
y-axis

$(-2,0)$



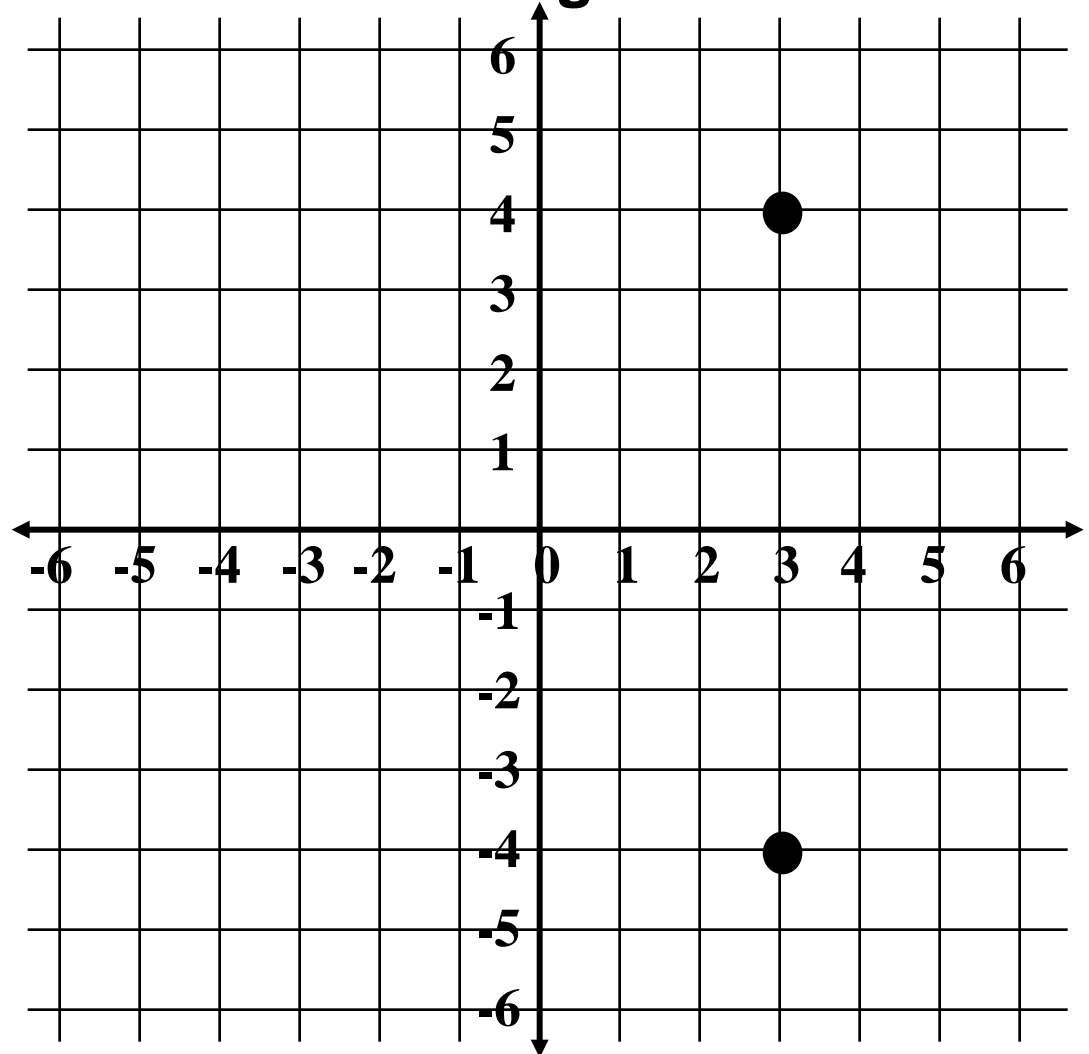
Reflections over the x-axis

Reflections over the x-axis are the same distance from the x-axis, just like the number line.

When reflecting over the x-axis, the x coordinate does not change!!!

Reflect $(3,4)$
over the
x-axis

$(3,-4)$



Reflections

Name the ordered pair that is a reflection of each point across the x-axis.

1) $(3, -8)$
 $(3, 8)$

2) $(-4, -5)$
 $(-4, 5)$

3) $(-11, -12)$
 $(-11, 12)$

Name the ordered pair that is a reflection of each point across the y-axis.

4) $(2, -4)$
 $(-2, -4)$

5) $(-1, -1)$
 $(1, -1)$

6) $(7.5, 4)$
 $(-7.5, 4)$