Graphing Ordered Pairs

6.NS.6.2 I can place (graph) ordered pairs in all four quadrants of the coordinate plane.

Flashback

1) What is the **mean** of the following data set?

98, 208, 189, 94, 117

a) 141.2
b) 99.6
c) 176.5
d) 147.25

2) What is the **Range** of the following set of numbers?

164, 192, 265, 99, 108

a) 164
b) 165.6
c) 99
d) 166

3) The following lists the height in inches of seven Boyle County Rebels basketball players:
Player 1: 73 in
Player 2: 77 in
Player 3: 80 in
Player 4: 86 in
Player 5: 77 in
Player 6: 84 in
Player 7: 81 in

What is the **mode** height on the basketball team?

a) 77 in
b) 86 in
c) 13 in
d) 79.7 in

4) What is the **median** of the following set of numbers:

57, 71, 66, 50, 74, 55, 62, 77

a) 62
b) 57
c) 64
d) 59.5

The Boy who invented the coordinate plane – Renes' Descartes

Today's Lesson

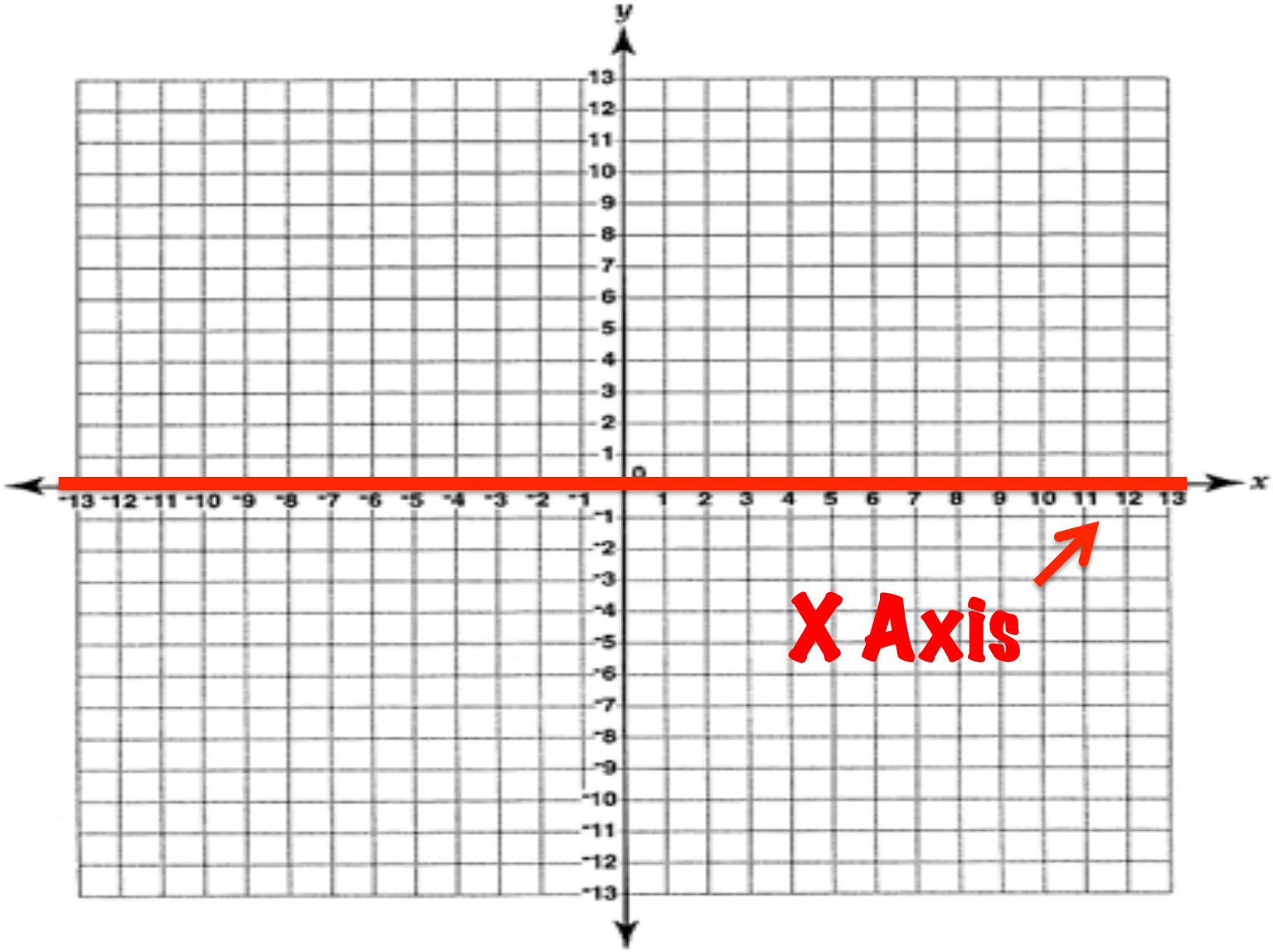
I can graph ordered pairs on the coordinate plane.

Lesson Notes - Vocabulary

Coordinate plane_: The plane formed by two perpendicular lines called the x-axis and y-axis.

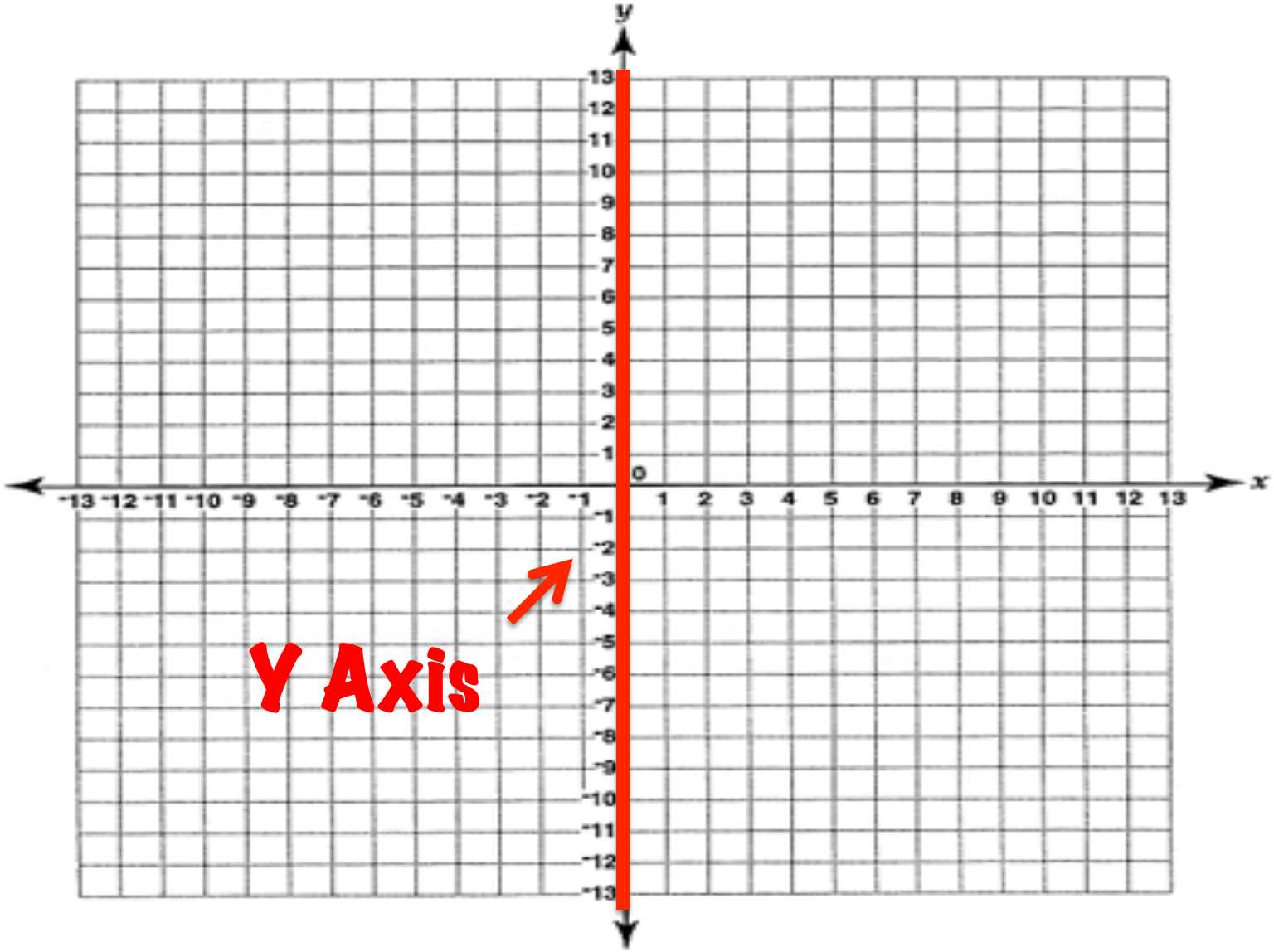
The coordinate plane is divided into four regions. Each region is called a Quadrant.

X- Axis : the horizontal number line.


y
x
13
12
11
10
9
8
7
6
5
4
3
2
1
0
-13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1
1 2 3 4 5 6 7 8 9 10 11 12 13
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
-11
-12
-13
X Axis

Lesson Notes - Vocabulary

Y- Axis :the vertical number line.


y
x
0
Y Axis

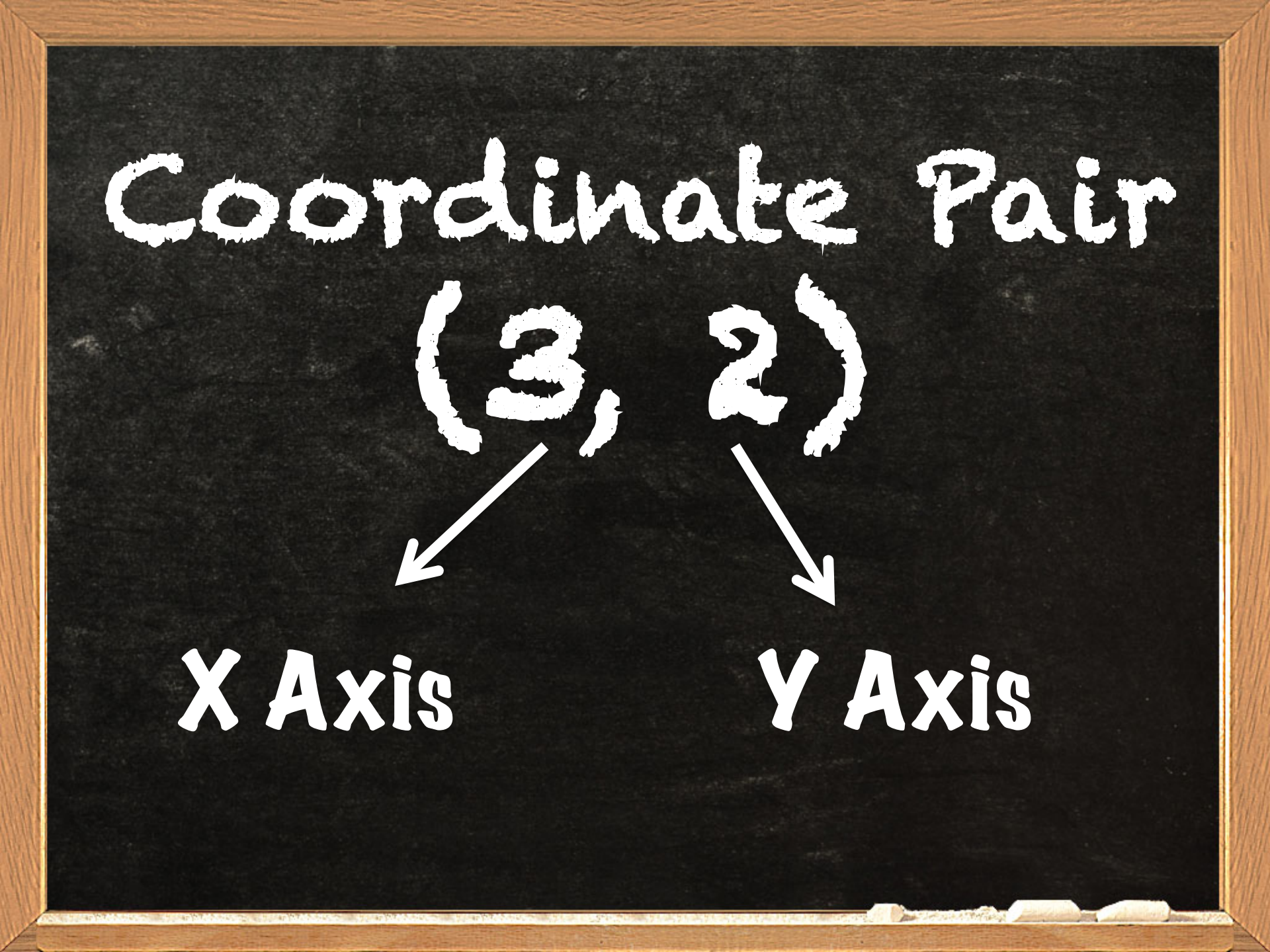
Lesson Notes - Vocabulary

Ordered Pair : a pair of numbers that represent a unique point in the coordinate plane. Remember, taXi before you flY.

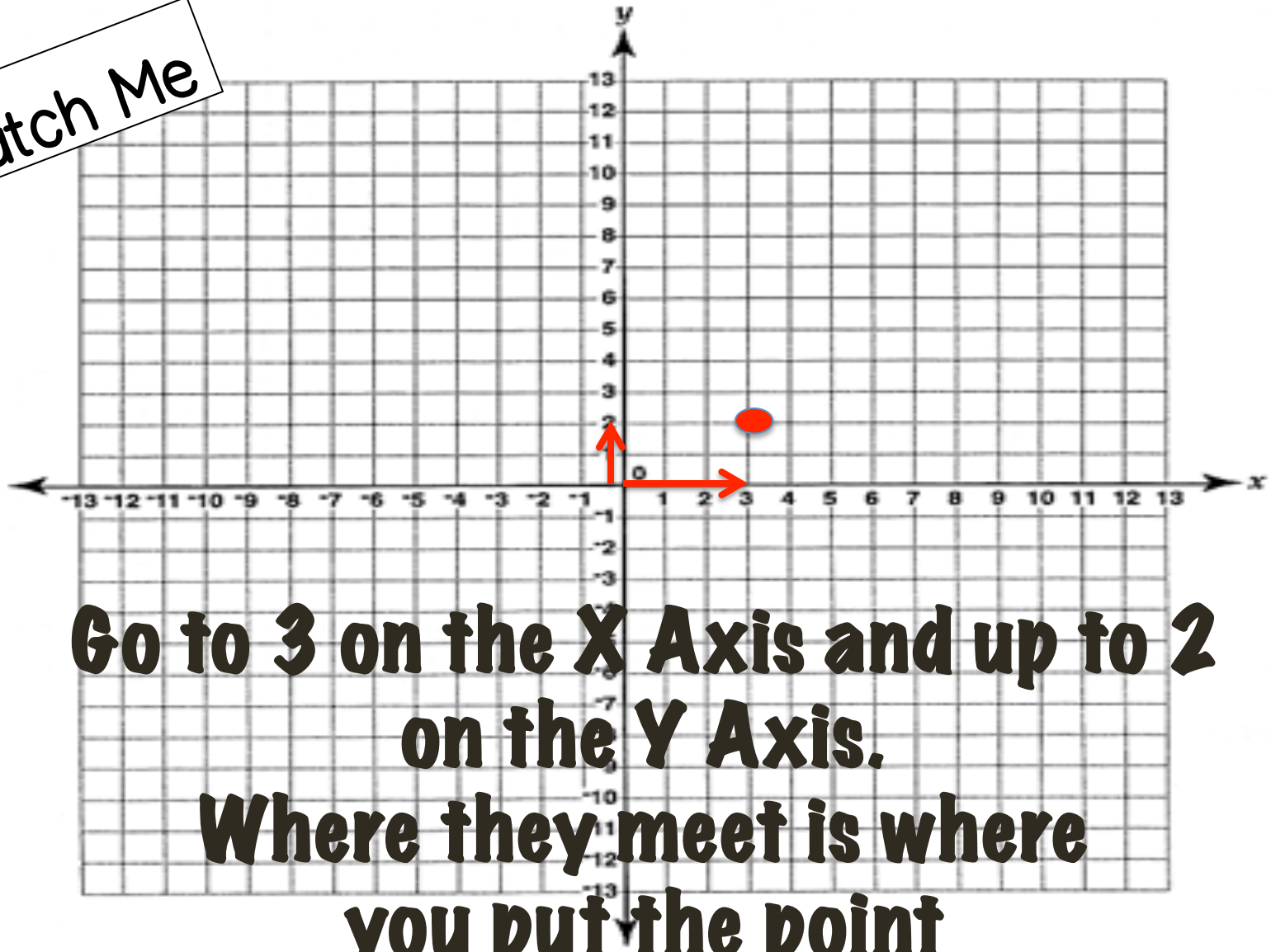
Lesson Notes - Vocabulary

Origin : the center of the coordinate plane. It has coordinates (0,0) It is the point we always start when we are graphing.

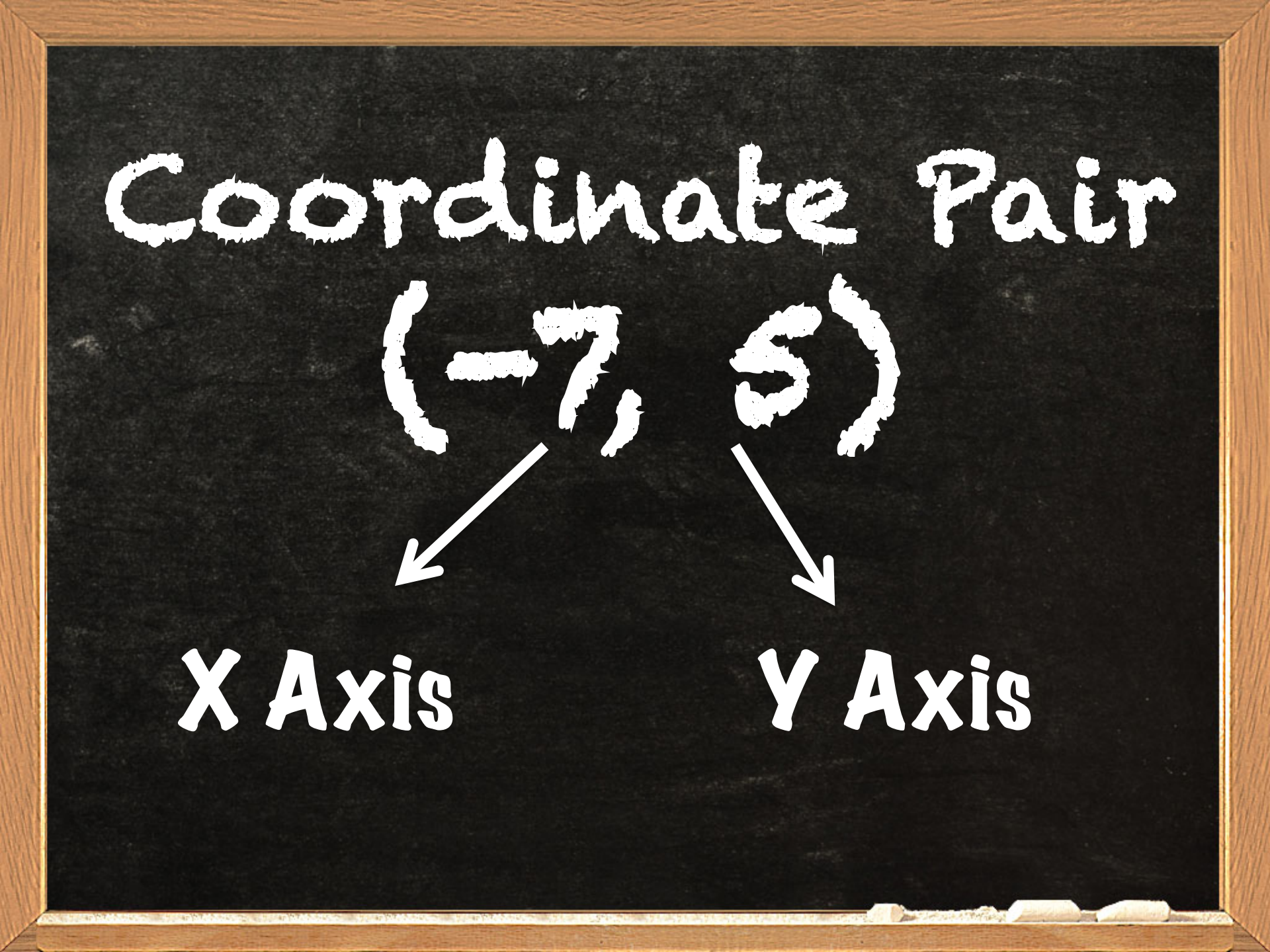
To graph a point in the coordinate plane, start at the origin. Look first at the x coordinate. If the x -coordinate is positive, move that many spaces to the **right**. If the x coordinate is negative, move that many spaces to the **left.** From your x-coordinate location, look at the y-coordinate. If the y coordinate is positive, go **up** that many spaces. If the y-coordinate is negative, go **down** that many spaces.


Coordinate Pair
(3, 2)
X Axis
Y Axis

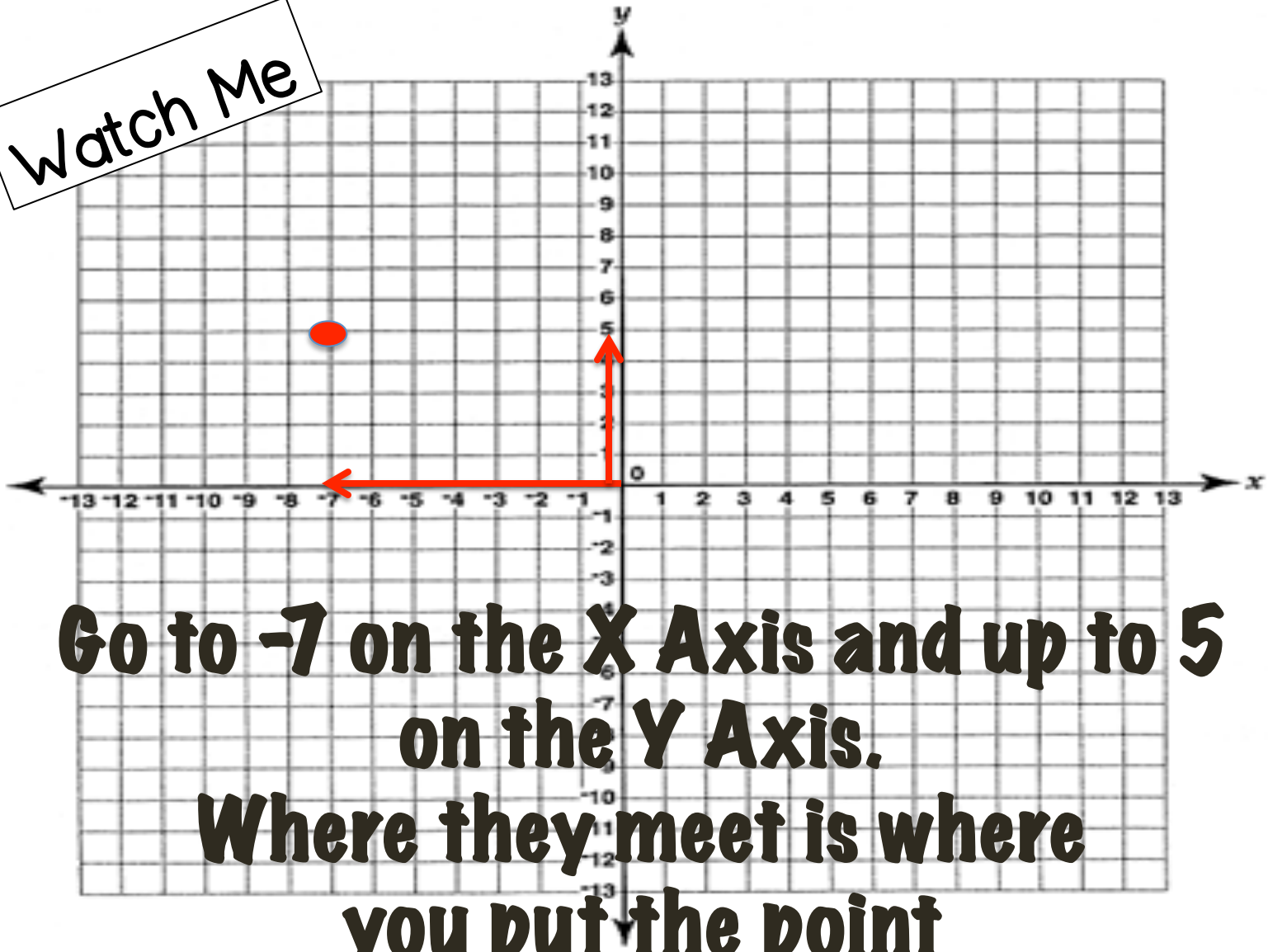
Watch Me



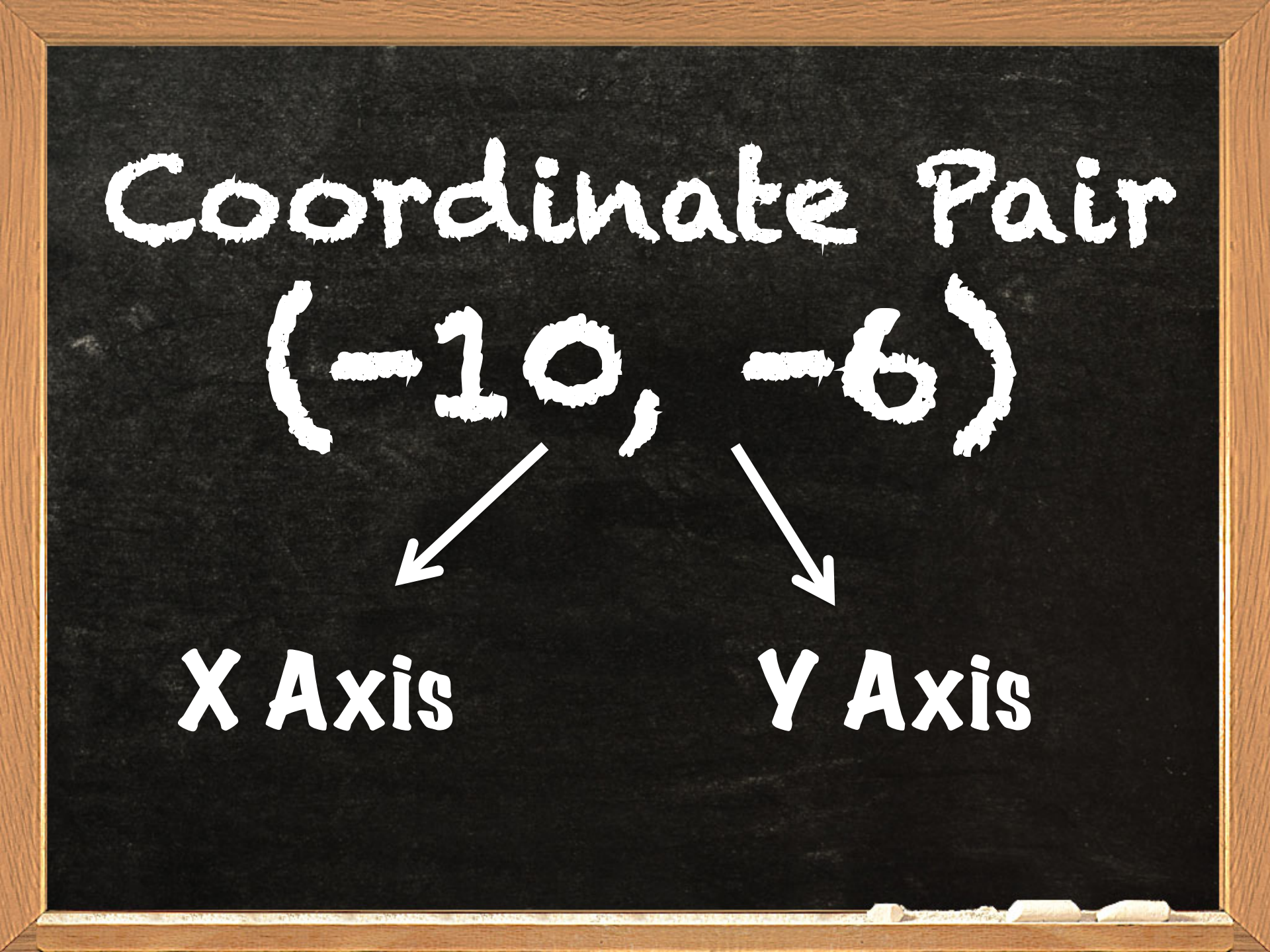
Go to 3 on the X Axis and up to 2 on the Y Axis.
Where they meet is where you put the point


Coordinate Pair
(-7, 5)
X Axis
Y Axis

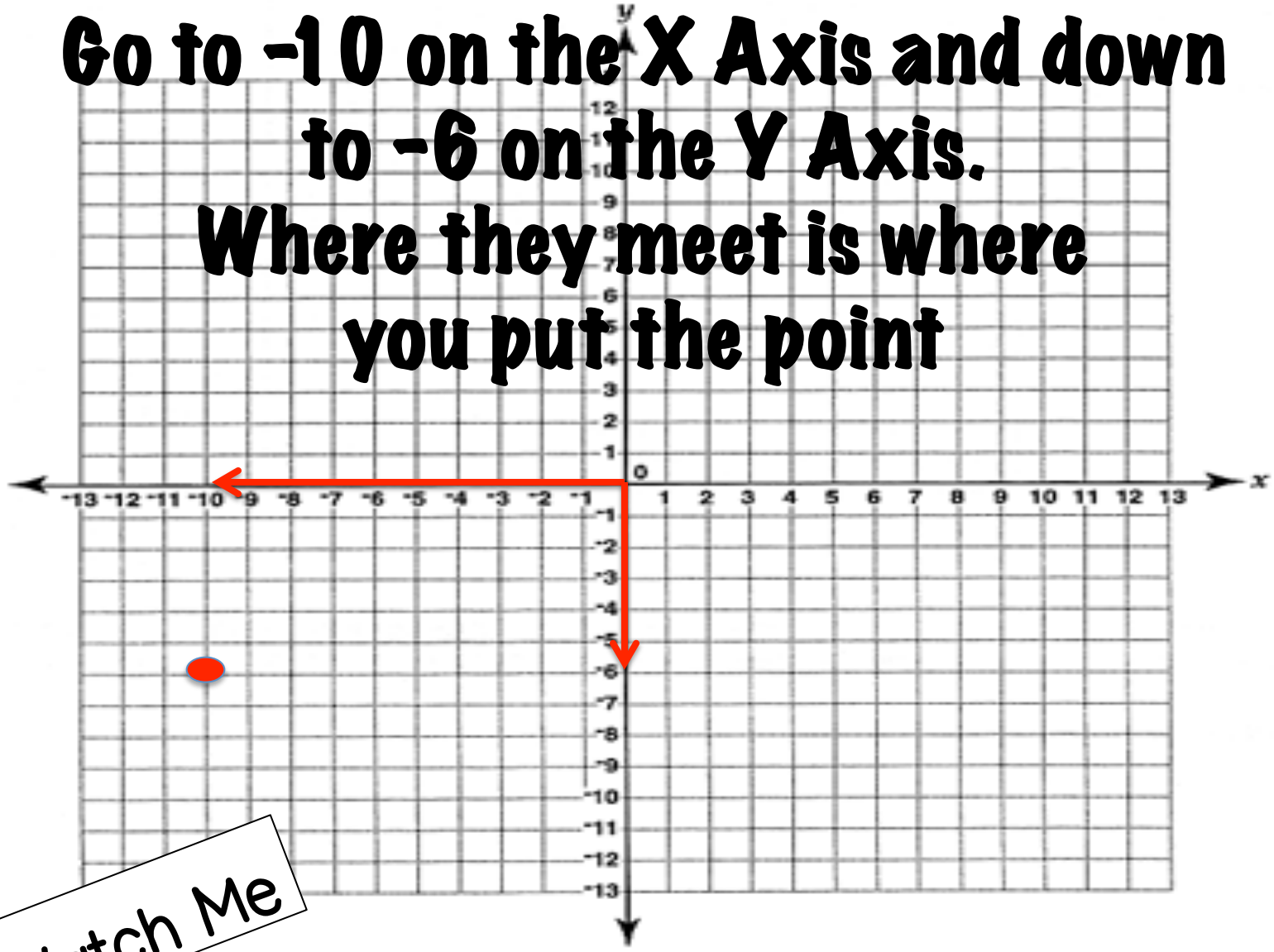
Watch Me



Go to -7 on the X Axis and up to 5 on the Y Axis.
Where they meet is where you put the point

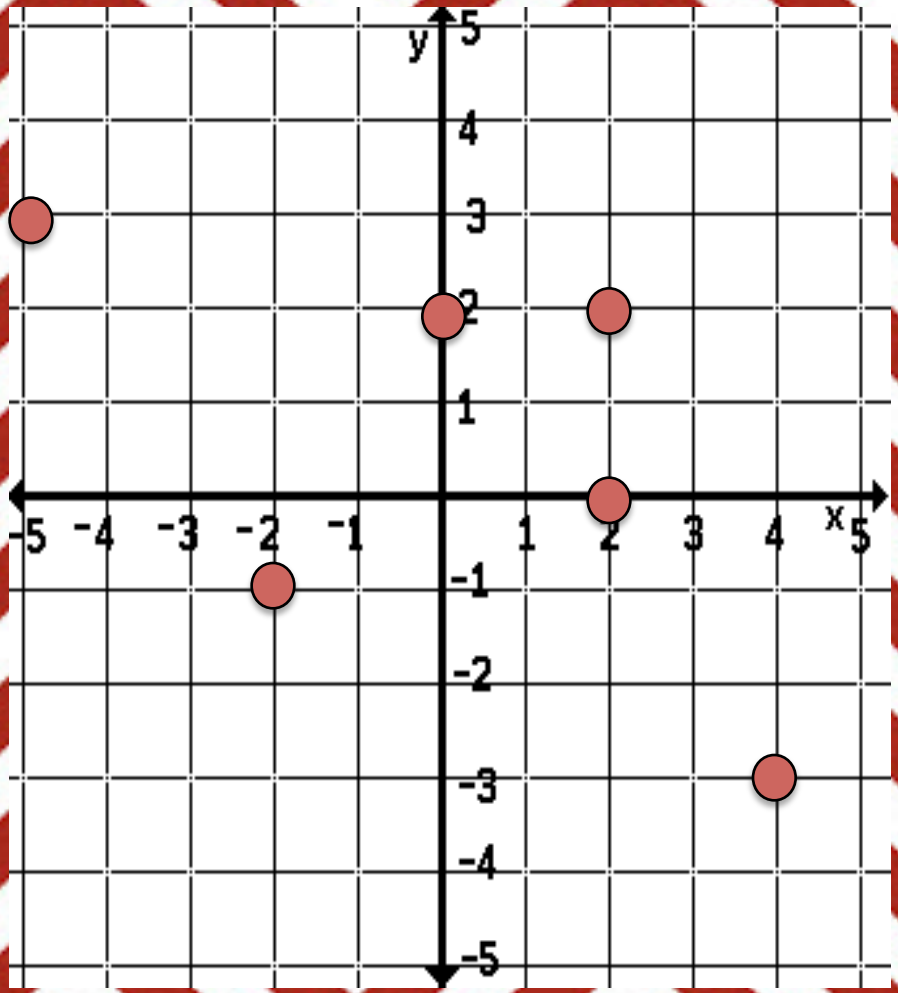

Coordinate Pair
(-10, -6)
X Axis
Y Axis

Go to -10 on the X Axis and down to -6 on the Y Axis. Where they meet is where you put the point



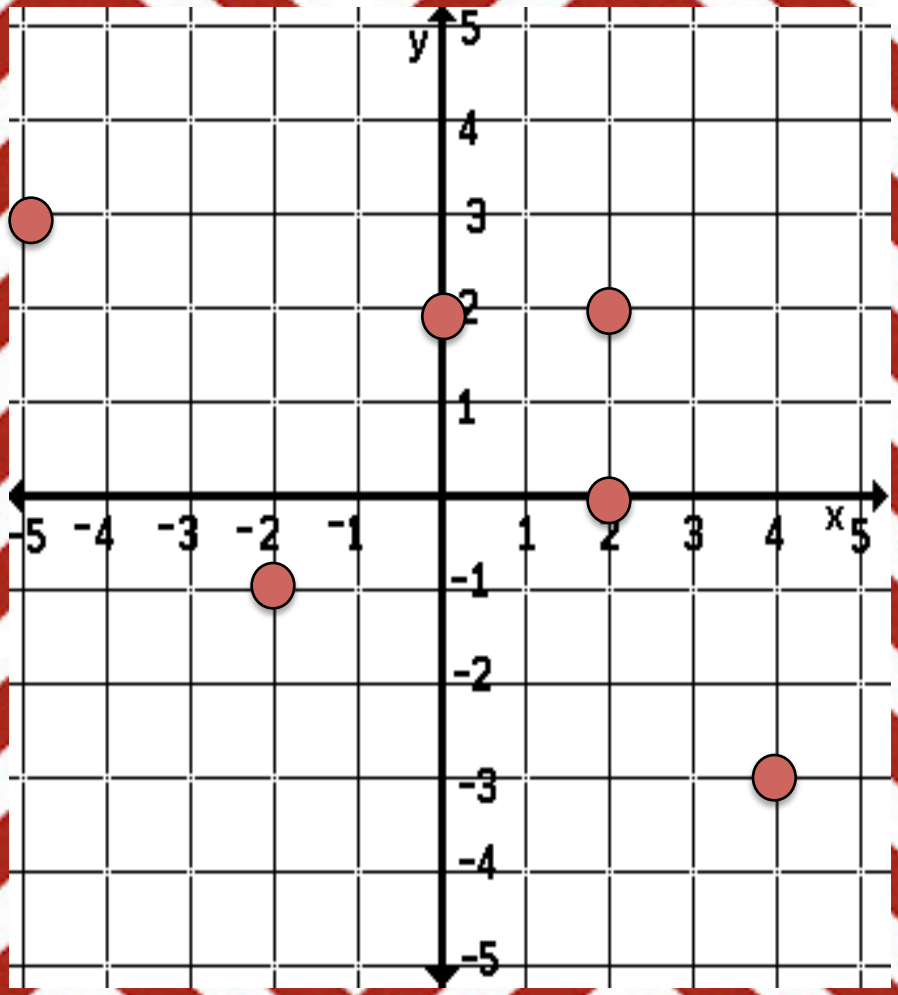
Watch Me

Practice



Graph the points on your coordinate plane with A (0,2). You can graph B (4, -3), C (-2, -1),D (2,3), E (2, 0), and F (-5, 3).

Practice



Name the Quadrant:

(0,2): y-axis

(4, -3): IV

(-2, -1): III

(2,3): I

(2,0): x-axis

(-5,3): II

Graphing Ordered Pairs Races

Today to introduce graphing ordered pairs we will be racing to graph ordered pairs on the coordinate plane taped on the floor.

- **Each student will be placed on a team.**
- **You will be given a number**
- **When you number is called, you will be given a ordered pair.**
- **The first person to find the point of the order pair gets points for their team.**

Graphing Ordered Pairs Races

Each person will get a coordinate plane.
Label this paper, **Graphing Races**
Put your name on it!

When you are not racing, you will graph on the ordered pair on the screen on your coordinate plane at your desk.

Team members not plotting the points on their own paper will lose points for their team.

Coordinate Pair

Team 1	Team 2
(-3, 2)	(-7, -9)

Coordinate Pair

Team 1	Team 2
(2, 2)	(8, -7)

Coordinate Pair

Team 1	Team 2
(0, 7)	(0,-10)

Coordinate Pair

Team 1	Team 2
(-3,-7)	(2, 8)

Coordinate Pair

Team 1	Team 2
(-1,3)	(-4,-5)

Coordinate Pair

Team 1	Team 2
(-10,3)	(10,3)

Coordinate Pair

Team 1	Team 2
(4,5)	(9,-2)

Coordinate Pair

Team 1	Team 2
(5, 2)	(-4, 3)

Coordinate Pair

Team 1	Team 2
(-2, 3)	(-7, -2)

Coordinate Pair

Team 1	Team 2
(10,10)	(-10, 9)

Coordinate Pair

Team 1	Team 2
(3, -7)	(8, -4)

Coordinate Pair

Team 1	Team 2
(10, -2)	(-9, 3)

Coordinate Pair

Team 1	Team 2
(8, 4)	(-3, 9)

Coordinate Pair

Team 1	Team 2
(6, −4)	(−8, 1)

Time for an Exit Slip!

I can recognize (find) ordered pairs in all four quadrants of the coordinate pla