Find your way to the Ordered Pair Coordinate Plane   Math 6

Notes and Review

The Rectangular Coordinate Plane

Did you know that the coordinate plane is just a combination of a horizontal number line and a vertical number line?

The x-axis is a horizontal number line and the y- axis is a vertical number line that crosses right through the point zero to make the coordinate plane.

1. Using the blue box, label the x-axis and y-axis below.
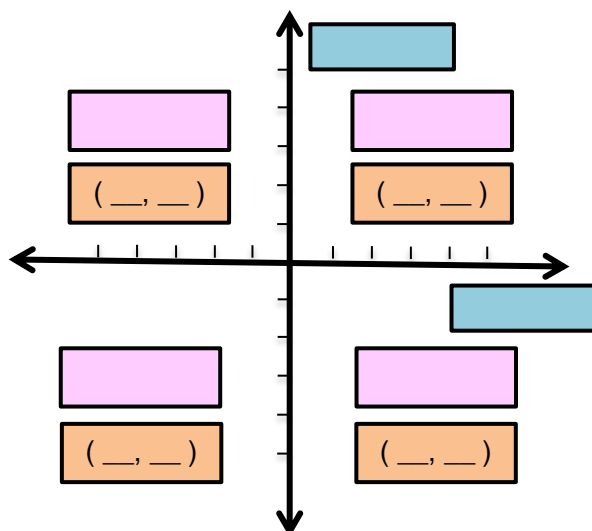
2. Draw a dot where the axes intersect or cross. This point is called the origin and is named by its ordered pair (0,0). Label this above on your coordinate plane.

The intersection of the two number lines divides the plane into four regions called quadrants. Quadrants are named using the Roman numerals I, II, III, IV. The naming starts at the top right quadrant and then moving counter clockwise.

3. Refer to the coordinate plane above and use the pink boxes to label the quadrants above.

The coordinate plane is made up of infinitely many points named by its ordered pair. An ordered pair is written in the form (x,y). The first number in the ordered pair corresponds to the x-coordinate, while the second number corresponds to the y-coordinate. The signs of the coordinates vary on each quadrant.

4. Refer to the coordinate plane above and use the orange boxes to describe the signs of the coordinates in each quadrant.

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Naming of Points on the Coordinate Plane

From the origin (0, 0), count the number of units to the left or to the right, then count the number of units up or down to determine the y-value.
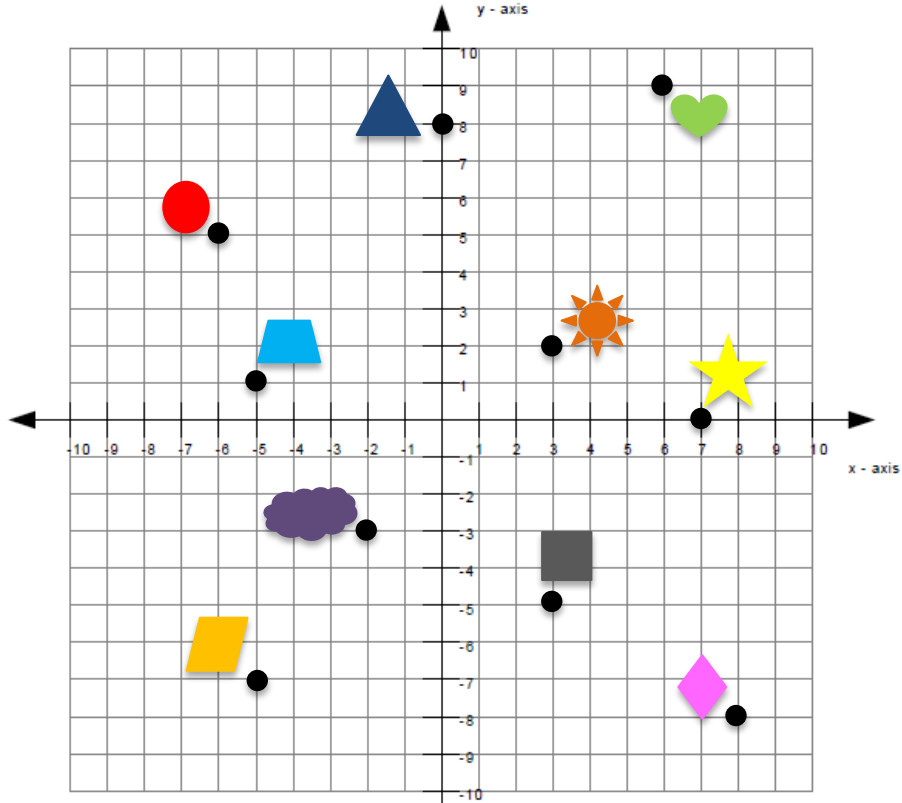
Shapes	Coordinates (x, y)
🔴	
🔺	
💚	
⬛	
☁️	
⭐	
☀️	
🔶	
🟦	
🟧	

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Independent Practice

Imagine that you are on the coordinate plane and you need to gobble up some shapes. Write down the coordinates of the given shapes below following the order. Remember to always start at the origin.

1.)   arrow, face, diamond (,   )   (,   ) (,   )

2.)   face, cloud, cube (,   )   (,   ) (,   )

3.)   arrow, cube, heart, face (,   )   (,   ) (,   ) (,   )

4.)   Diamond, cube, face, cloud, sun (,   )   (,   ) (,   ) (,   ) (,   )

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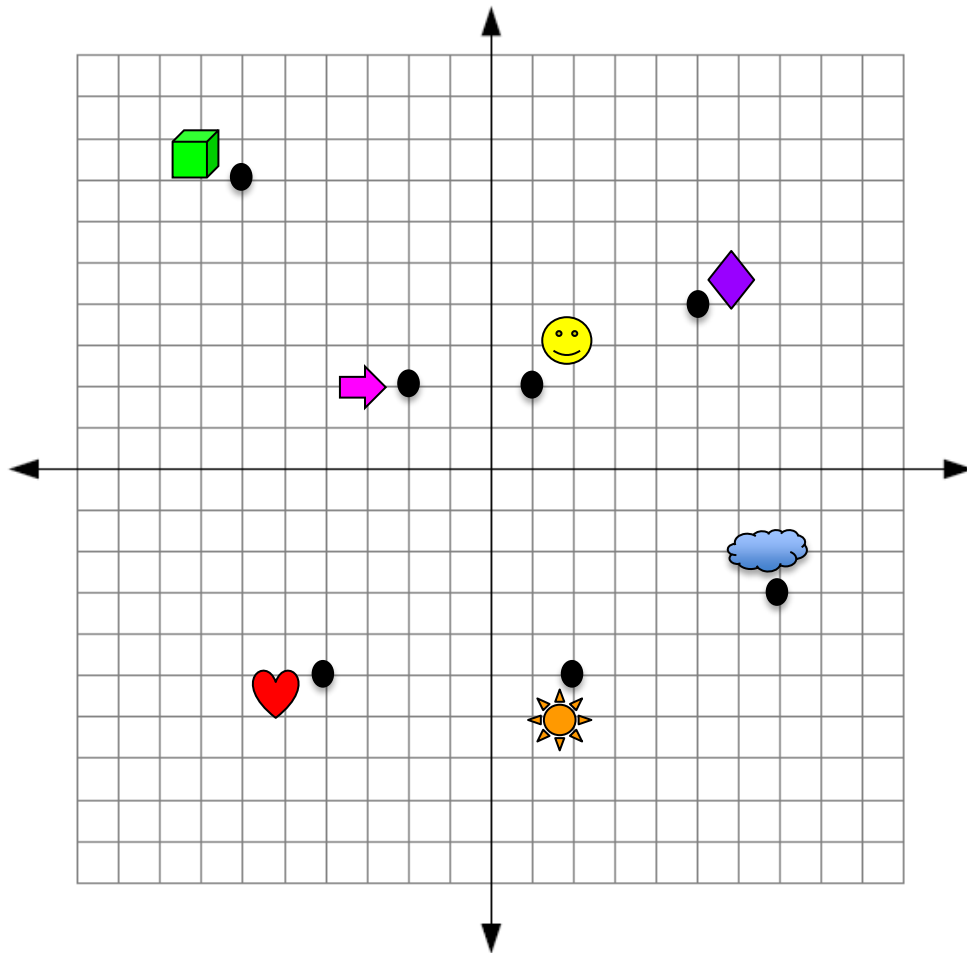
Find Your Way to the Ordered Pair

In this game, you will work in pairs. One of you knows the ordered pair and has to provide directions for your partner to make it to the correct spot on the board. The goal is to capture as many shapes and prizes as you can! Several cards, with ordered pairs written on them, will be placed on the table. Below are the mechanics.

1. One of you will pick the card and another one will be directed to look for the ordered pair on the huge coordinate plane on the board.

2. You must direct your partners to at least 3 different ordered pairs on the board.

3. The one who picks the card reads it silently (without revealing the ordered pair) and help direct your partner to that ordered pair on the board.

4. You are only to give directions and are not allowed to say the ordered pair. You must provide directions like "Take 2 steps to the right along the x-axis".

5. The directions will be given only ONCE! So pay attention.

6. Always start at the origin.

7. Your partner (on the board) can turn and face any direction, but can only move vertically or horizontally (not diagonally)

8. When your partner arrives at the spot, he/she will say the ordered pair aloud. While you, who has the card and gives directions, holds the card up and the class decides whether they are correct.

9. If your partner ends up on a prize or shape, they must "gobble it up" and pick a new card.

10. If they land on a blank space, they check the ordered pair and pick a new card.

11. If they land on an obstacle, they read the card and follow the instructions.

12. The point where your partner ends up will be labelled with his/her name or initials.

13. Team scores will be tallied on the board at the bottom of the coordinate plane. Tally marks will be put each time the pair gobbles up a prize.
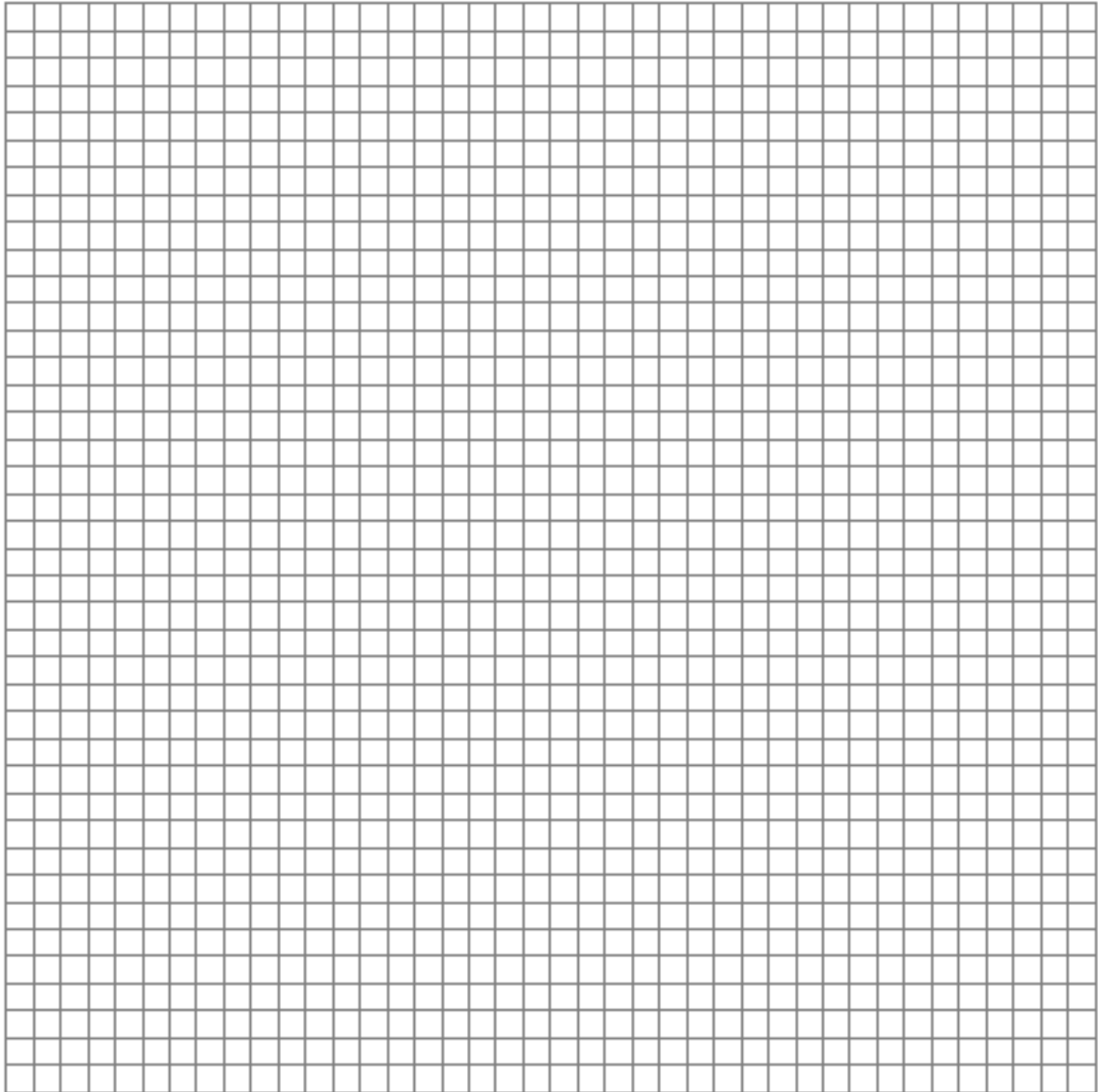
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My Very Own Coordinate Plane

Make your own coordinate plane. Label the axes correctly and plot at least 10 points.

Reflection (to be completed at the end of the activity)
What was the most difficult part of the activity? What did you learn or discover about ordered pairs on the coordinate plane?

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