

Coordinate Battle Instructions and Cards

Materials:

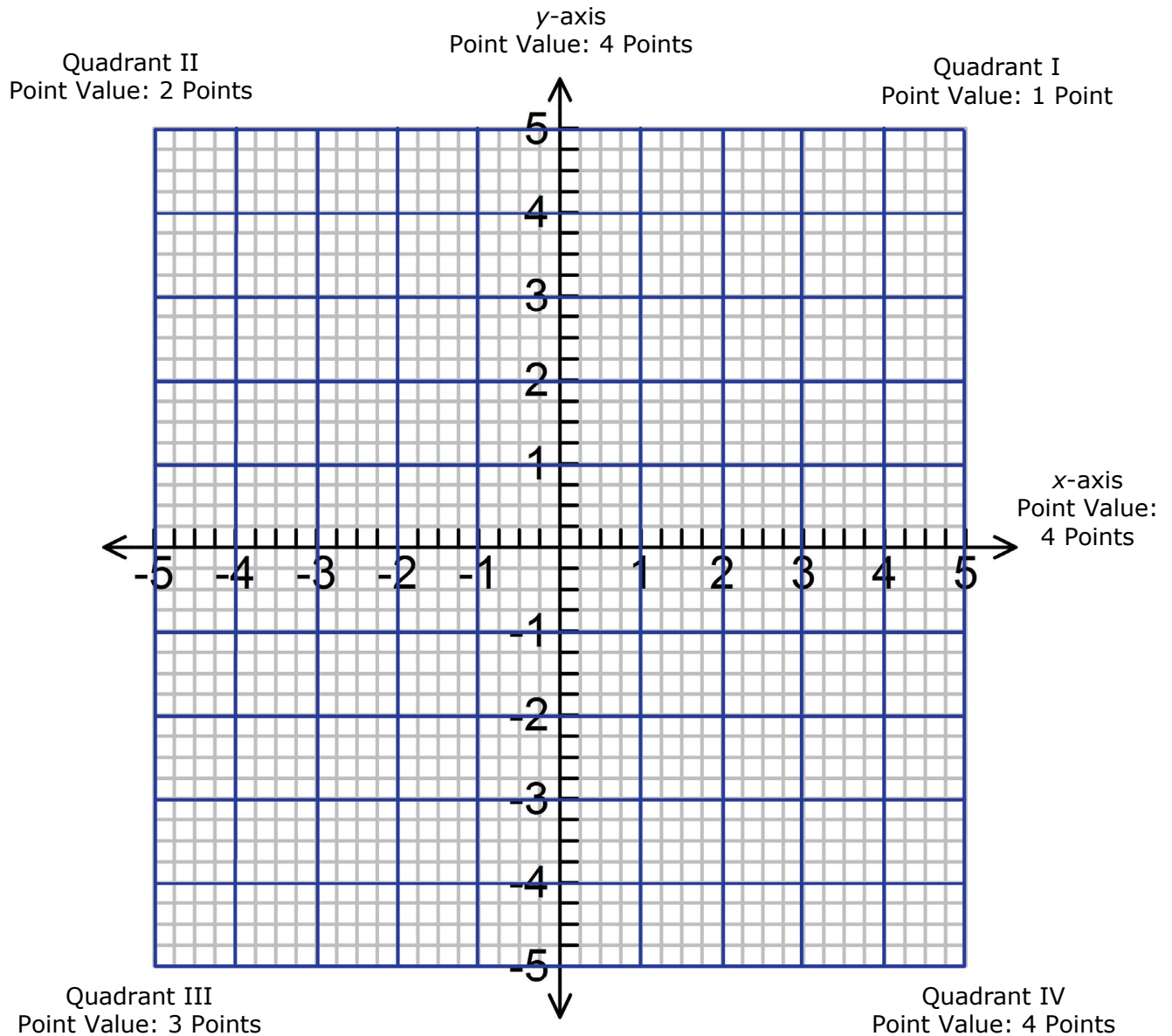
- Scissors
- Colored pencils—two different colors
- **Coordinate Battle Game Board**

1. Cut apart the cards below. Place the cards face down in a draw pile between you and your partner. Each player is to select a different colored pencil.
2. Determine which player will go first.
3. On your turn, draw a card and complete the ordered pair using one value from the Value Bank to earn as many points as possible. Once a value has been used from the Value Bank mark it off.
4. Use your colored pencil to plot and label the ordered pair on the coordinate plane, and then record the number of points earned in the scoreboard at the bottom of the page.
5. Play continues with the next player.
6. Once all cards have been played, the player with the most points wins the game.

Value Bank	
-4.25	1.25
0	0
-1	1.5
3.25	0
$2\frac{1}{4}$	-4
3.75	-5
0	$-2\frac{3}{4}$
$1\frac{1}{2}$	3

$(2, \underline{\quad})$	$(5, \underline{\quad})$	$(-2, \underline{\quad})$	$(-4, \underline{\quad})$
$(\underline{\quad}, 4)$	$(\underline{\quad}, -3)$	$(\underline{\quad}, 0)$	$(\underline{\quad}, -1)$
$(2\frac{1}{2}, \underline{\quad})$	$(-4\frac{3}{4}, \underline{\quad})$	$(3.25, \underline{\quad})$	$(-4.5, \underline{\quad})$
$(\underline{\quad}, -1\frac{1}{4})$	$(\underline{\quad}, 3\frac{3}{4})$	$(\underline{\quad}, -1.75)$	$(\underline{\quad}, 2.5)$

Coordinate Battle Game Board



Score Board

Name	1st Play	2nd Play	3rd Play	4th Play	5th Play	6th Play	7th Play	8th Play	Total Points

Name: _____

Table and Graphs

1. Cut apart **Graph Cards**.
2. Use glue or tape to attach the appropriate graph to each table.
3. Determine an additional ordered pair that would fit the pattern.
4. Complete the table and plot the additional ordered pair.

A

x	y
-1	1
0	3
1	5

Attach
Graph
Here

B

x	y
$\frac{1}{2}$	0
0	1
$\frac{1}{2}$	2

Attach
Graph
Here

C

x	y
1	-1
3	0
5	1

Attach
Graph
Here

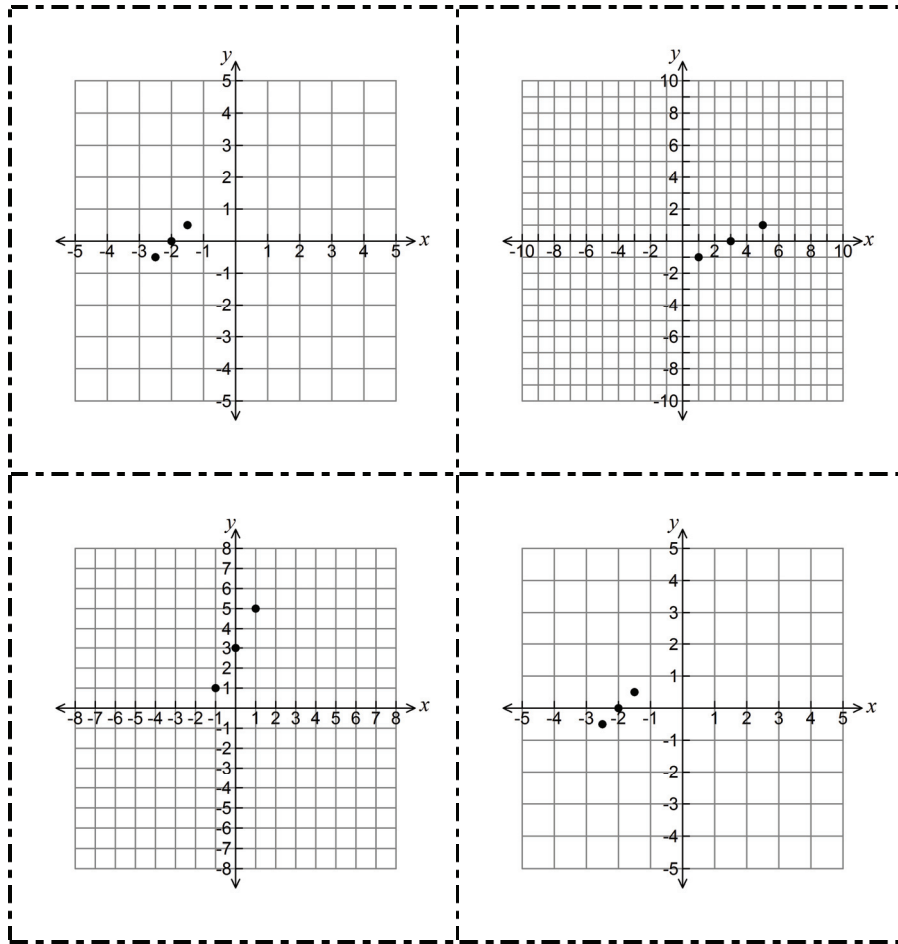
D

x	y
-2.5	-0.5
-2	0
-1.5	0.5

Attach
Graph
Here

Graph Cards

Cut along the dotted lines.



Completing the Table

Table 1

Some of the values for the equation $y = 2x + 1$ are missing. Complete the table for the missing values.

x	0		2	4		9		13
y		3			15		21	

- Are the y -values increasing or decreasing?
- When x increases by 1, what happens to the y -value?
- Graph the ordered pairs in the table that will fit on the coordinate grid.

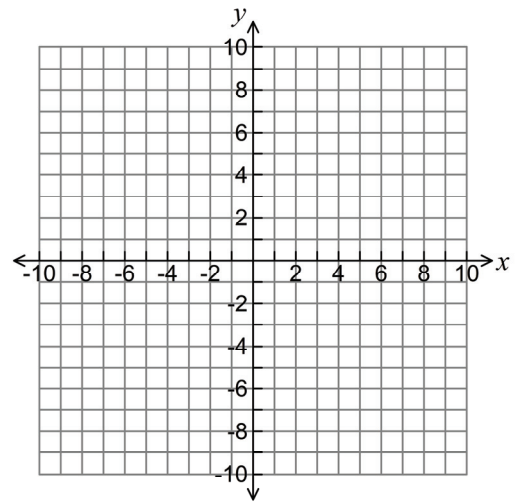


Table 2

Some of the values for the equation $y = x + 2$ are missing. Complete the table for the missing values.

x			2	3			6	7
y	2	3			6	7		

- Are the y -values increasing or decreasing?
- When x increases by 1, what happens to the y -value?
- Graph the ordered pairs in the table that will fit on the coordinate grid.

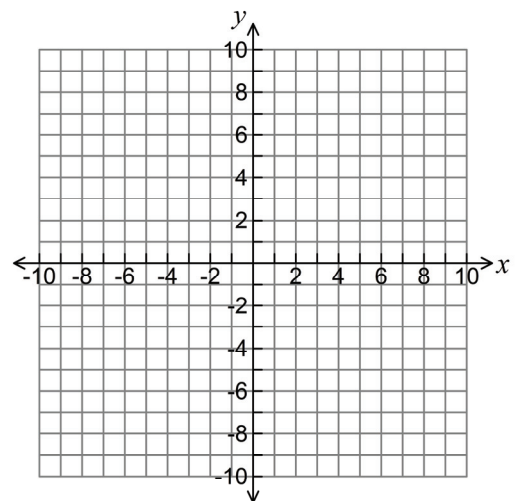


Table 3

Some of the values for the equation $y = 2x - 5$ are missing. Complete the table for the missing values.

x	-3	-2		0	1		6	9
y			-7			-1		

- Are the y -values increasing or decreasing?
- When x increases by 1, what happens to the y -value?
- Graph the ordered pairs in the table that will fit on the coordinate grid.

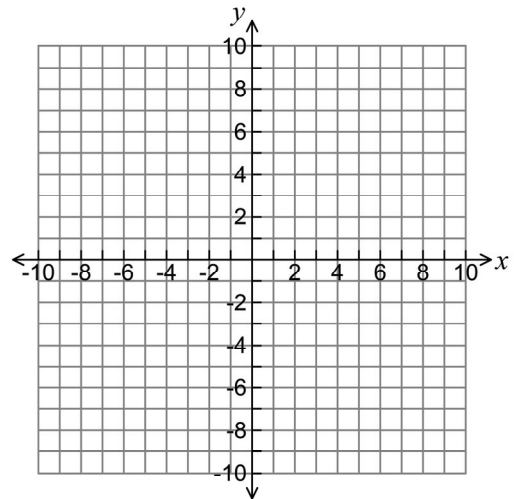
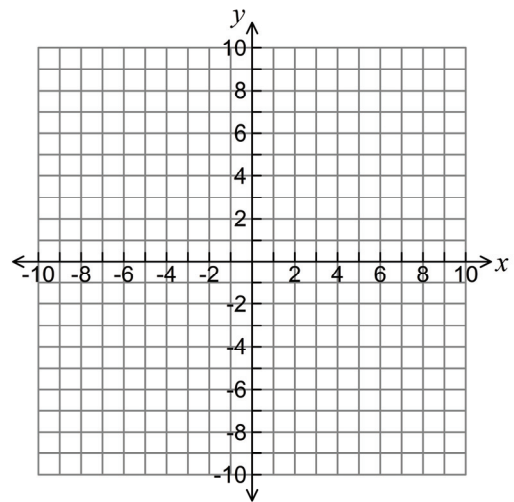


Table 4

Some of the values for the equation $y = -2x + 3$ are missing. Complete the table for the missing values.

x	0			9		15	16	18
y		-3	-9		-21			

- Are the y -values increasing or decreasing?
- When x increases by 1, what happens to the y -value?
- Graph the ordered pairs in the table that will fit on the coordinate grid.



Writing Equations

Complete each step for the following tables:

- Complete any missing values in the table.
- Find the rate of change for the table.
- Highlight the ordered pairs in the table where the x -coordinate has a value of 0.
- Write an equation for the table.

1.

x	y
0	
1	- 1
3	3
5	7
7	11

Rate of Change: _____

Equation: _____

2.

x	y
0	
1	8
3	18
4	23
6	33

Rate of Change: _____

Equation: _____

3.

x	y
0	
8	1
12	3
18	6
20	7

Rate of Change: _____

Equation: _____

4. How did you determine the values of y when $x = 0$?

5. How did you determine the equation?

Problem Cards

Cut along the dotted lines.

Jessica increased the number of sit-ups she did each day by the same amount. On the seventh day, she finished 22 sit-ups, and on the eighth day she completed 25 sit-ups.

1. Create a table representing the number of sit-ups Jessica completed for the first 10 days.
2. Create a graph representing the number of sit-ups Jessica completed for the first 10 days.
3. Write an equation that could be used to find s , the number of sit-ups Jessica completes on day n .

Little Italy Pizza charges a \$5 delivery charge. It cost \$53 to have 4 pizzas delivered, not including tax.

1. Create a table representing the cost of having 1 to 10 pizzas delivered, not including tax.
2. Create a graph representing the cost of having 1 to 10 pizzas delivered, not including tax.
3. Write an equation that could be used to find c , the cost of having n pizzas delivered, not including tax.

The students in Ms. Garcia's math class are ordering the materials they will need for a mathematics project. Each student will need a bag of plant seeds that costs \$1.50 and an 8-plant tray that costs \$3.00.

1. Create a table representing the cost for the first 10 students.
2. Create a graph representing the cost for the first 10 students.
3. Write an equation that could be used to find c , the total cost for n number of students.

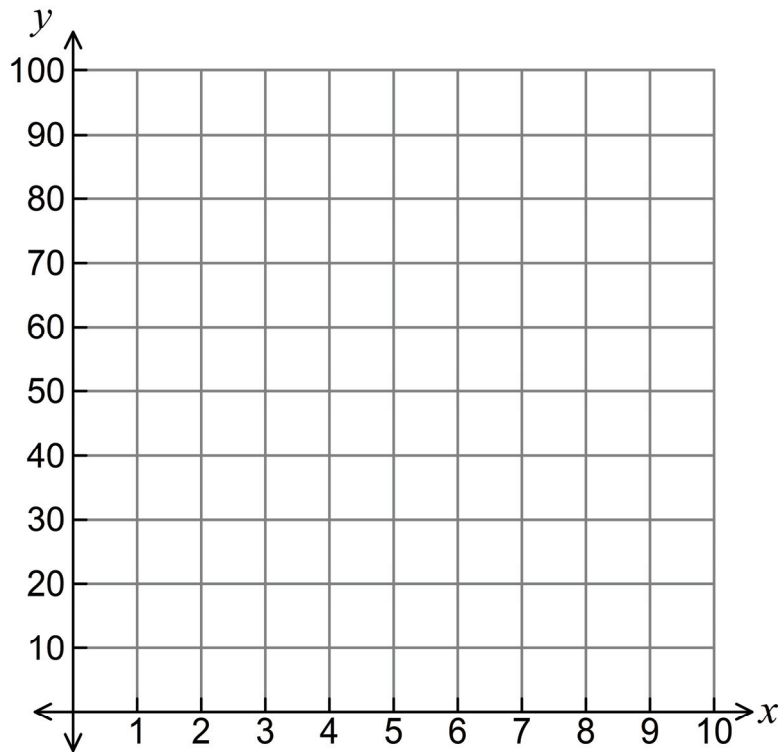
Name: _____

Our Problem Situation

Use the table and graph below to find the equation of your given problem situation. Label the graph.

1. Table

2. Graph



3. Equation: _____

Evaluate: Writing Equations

1. Which of the following statements best describes the data in the table below?

x	y
0	- 2
1	1
3	7
4	10

- A** The value of y is 2 less than the value of x .
- B** The value of y is 2 less than three times the value of x .
- C** The value of y is 2 more than three times the value of x .
- D** The value of y is 3 times the value of x increased by 1.

2. Which table best represents the equation shown below?

$$y = 2x - 4$$

A

x	3	4	- 1	0
y	6	8	- 2	0

C

x	2	1	3	0
y	8	6	10	4

B

x	1	3	5	7
y	- 2	2	6	10

D

x	1	2	3	4
y	- 2	0	10	12

3. Which equation best represents the relationship between x and y in the table below?

x	y
8	8
10	9
12	10
20	14

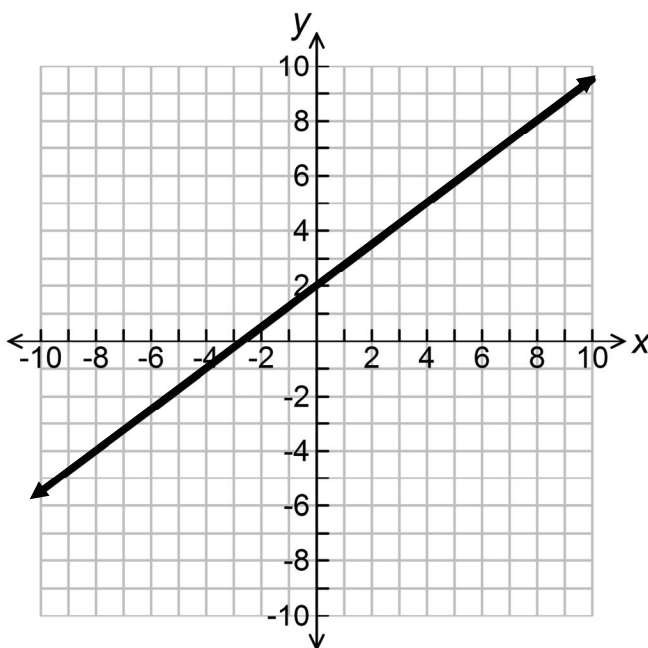
A $y = \frac{1}{2}x + 4$

B $y = \frac{1}{2}x - 2$

C $y = 2x + 4$

D $y = 2x - 2$

4. The graph of the equation $y = \frac{3}{4}x + 2$ is shown below.



Which table of values represents ordered pairs of the graphed equation?

A

x	y
-8	-8
0	2
4	5

C

x	y
-4	5
4	-5
8	4

B

x	y
0	2
1	5
8	8

D

x	y
-4	-1
0	2
4	5