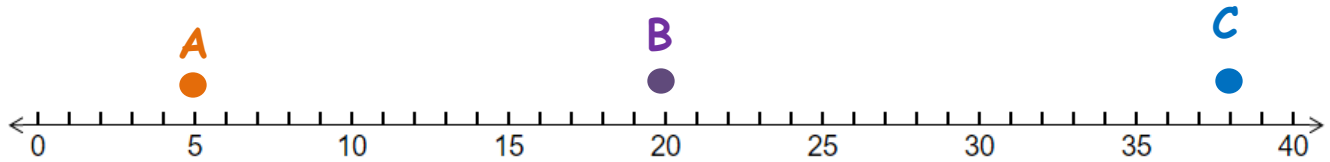


Patterns on the Coordinate Plane

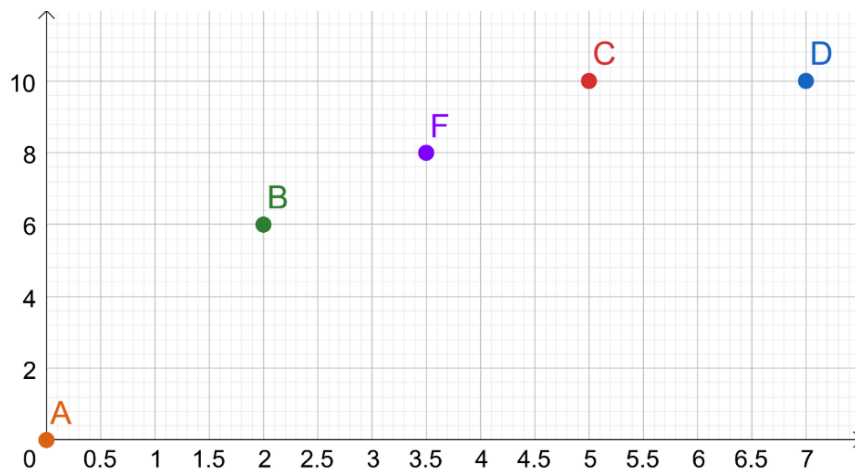
Assignment

Math 5

Part A: Use the graphs shown below to answer the corresponding questions.



1. What is the value of A?
2. What coordinate is 20 units away from the origin?
3. If point E is 15 units from the origin, will it be closer to A or B?



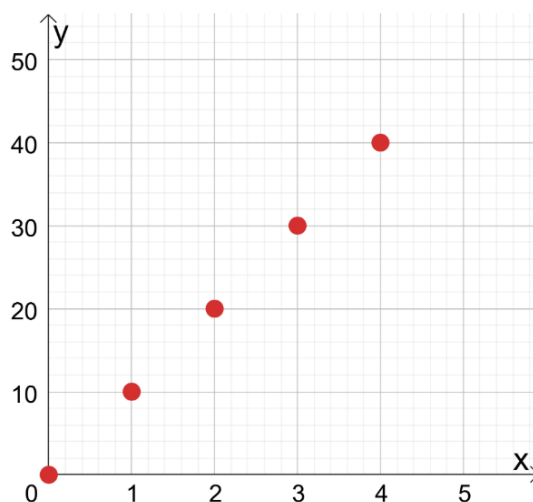
4. What are the coordinates of:
 - a. A =
 - b. B =
 - c. C =
 - d. D =
5. If we multiply the the coordinates of F by 2, what would be the value of the new ordered pair?

Patterns on the Coordinate Plane

Assignment

Math 5

Part B: Observe the pattern on each coordinate plane and answer the questions that follow.



1. Find the coordinates of the ordered pairs shown and complete this table below.

x	y
0	
1	
2	
3	
4	

2. What is number rule for x and y?

3. If $x = 5$, what would the value of y be?

4. If $y = 1000$, what would the value of x be?

Math 5

Patterns on the Coordinate Plane

Assignment

Math 5

3. If $x = 10$, what would the value of y be?
4. Think of a situation in real life that can be represented by these values.

Part C: Use your knowledge in patterns and coordinate planes to answer the problems below.

Cindy plans to purchase a new laptop by the end of the year so she started saving \$12 on the first week and plans to increase that as the week goes by as shown below.

Week	Amount Saved
Week 1	\$12
Week 2	\$15
Week 3	\$18
Week 4	\$21
Week 5	\$24

1. Let x be the week number and y be the amount saved that week. Write the table as a set of five ordered pairs.

Name: _____ Period: _____ Date: _____

Patterns on the Coordinate Plane

Assignment

Math 5

2. Construct a coordinate plane showing Cindy's progress for the past four weeks.

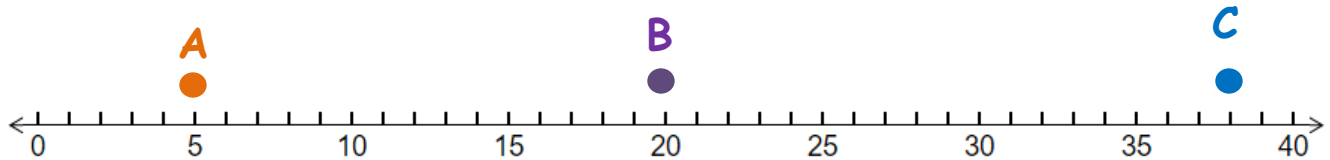
3. How much will she save in Week 6?

Patterns on the Coordinate Plane

Assignment

Math 5

Part A: Use the graphs shown below to answer the corresponding questions.



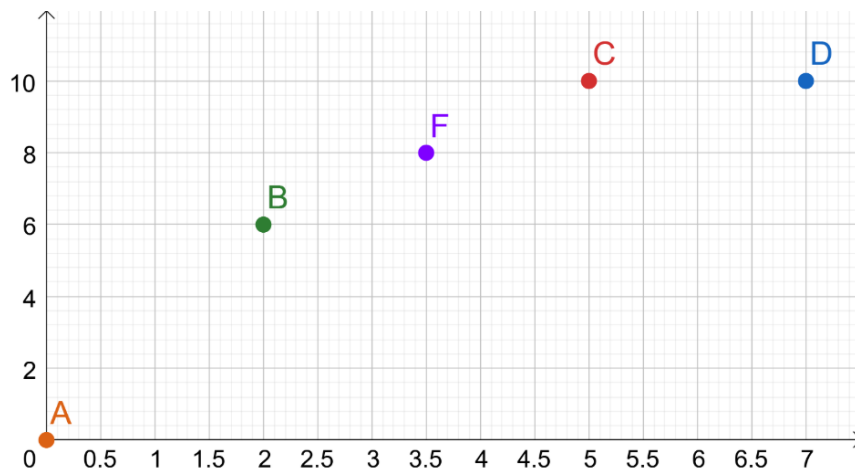
1. What is the value of A?

A = 5

2. What coordinate is 20 units away from the origin?

At coordinate = 20, that would be **B**.

3. If point E is 15 units from the origin, will it be closer to A or B? **B**



4. What are the coordinates of:

a. A = (0, 0) b. B = (2, 6) c. C = (5, 10) d. D = (7, 10)

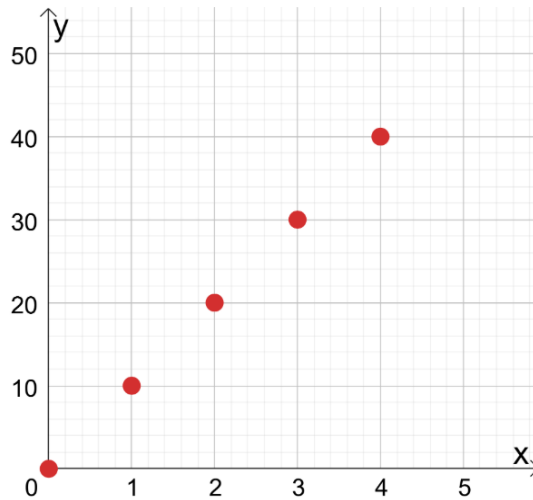
5. If we multiply the the coordinates of F by 2, what would be the value of the new ordered pair? $(2 \times 3.5, 2 \times 8) = (7, 16)$

Patterns on the Coordinate Plane

Assignment

Math 5

Part B: Observe the pattern on each coordinate plane and answer the questions that follow.



1. Find the coordinates of the ordered pairs shown and complete this table below.

x	y
0	0
1	10
2	20
3	30
4	40

2. What is number rule for x and y?

$$y = 10x$$

3. If $x = 5$, what would the value of y be?

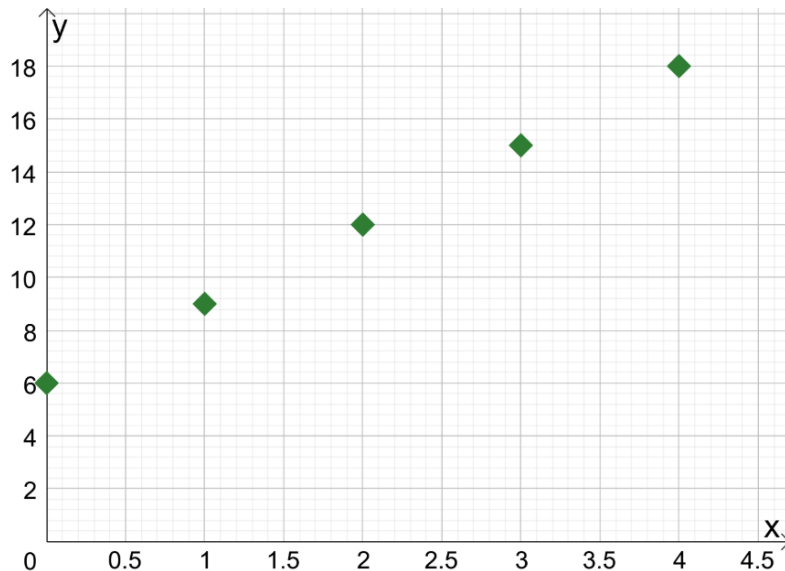
$$y = 5(10) = 50$$

4. If $y = 1000$, what would the value of x be? $x = 1000 \div 50 = 20$

Patterns on the Coordinate Plane

Assignment

Math 5



1. Find the value of the ordered pairs shown below.

Ordered pairs: $(0, 6), (1, 9), (2, 12)$

$(3, 15), (4, 18)$

2. Construct a table for these values and find the number pattern for the ordered pairs.

x	y
0	6
1	9
2	12
3	15
4	18

$$y = 3x + 6$$

Patterns on the Coordinate Plane

Assignment

Math 5

3. If $x = 10$, what would the value of y be?

$$y = 3(10) + 6 = 36$$

4. Think of a situation in real life that can be represented by these values.

x can be the number of weeks and y can be the height of the plant.

Part C: Use your knowledge in patterns and coordinate planes to answer the problems below.

Cindy plans to purchase a new laptop by the end of the year so she started saving \$12 on the first week and plans to increase that as the week goes by as shown below.

Week	Amount Saved
Week 1	\$12
Week 2	\$15
Week 3	\$18
Week 4	\$21
Week 5	\$24

1. Let x be the week number and y be the amount saved that week. Write the table as a set of five ordered pairs.

Ordered Pairs:

$(1, 12), (2, 15), (3, 18)$

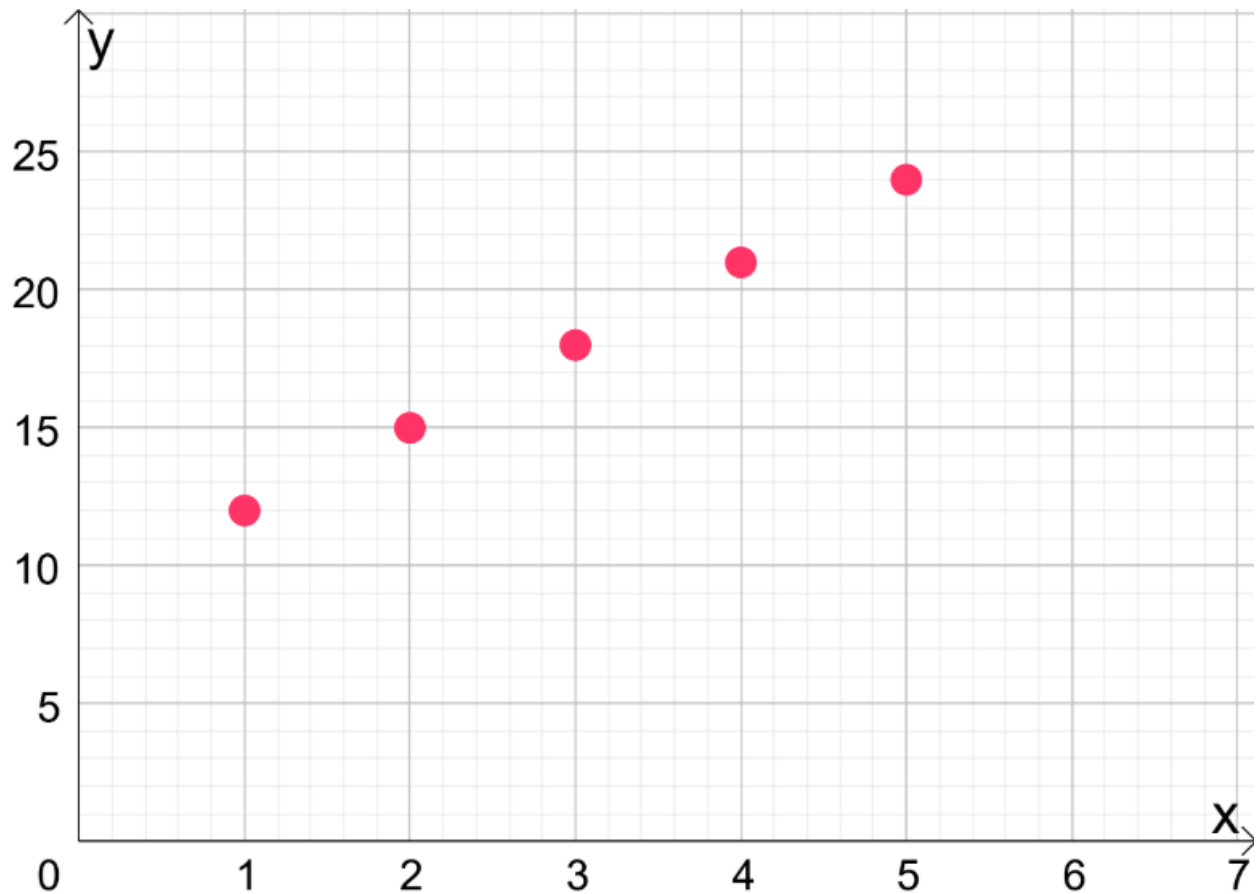
$(4, 21), (5, 24)$

Patterns on the Coordinate Plane

Assignment

Math 5

2. Construct a coordinate plane showing Cindy's progress for the past four weeks.



3. How much will she save in Week 6?

$$\text{Week 6} = 24 + 3 = \$27$$