

CC3 C3 Team test Version 1

Name: _____ Date: _____

1.) Farmer Janet can plant nine feet of carrots in 15 minutes while her daughter Amy can plant 17 feet of carrots in half an hour.

- Which farmer plants carrots more quickly? Why?
- What is each farmer's rate in carrots per hour?

8 Exceeds
7 Fully Met
6 Mostly met
5 Nearly met
4 Developing

2.) Study the tile pattern below.



Figure 0



Figure 1

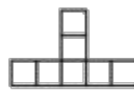


Figure 2

8 Exceeds
7 Fully Met
6 Mostly m
5 Nearly m
4 Developi

- Draw Figure 3 and Figure 4. Explain how the pattern grows.
- Write an equation (rule) for the number of tiles in the pattern.
- Explain how the growth factor appears in your equation.

3.) Write the equation represented below on your paper. Simplify as much as possible then solve for x . Be sure to record all your steps.

8 Exceeds
7 Fully M
6 Mostly
5 Nearly
4 Develo

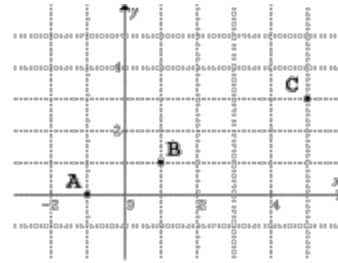
4.) Hamal has a new part-time job bagging groceries after school. The equation $y = 10x + 50$ shows the relationship between his hours of work (x) and the amount of money in his bank account (y).

8 Exceeds
7 Fully M
6 Mostly
5 Nearly
4 Develo

- How much money did he have in his bank account before he started working? How can you tell from the equation?
- How much is Hamal earning per hour? Justify your answer.

5.) Aaron noticed that points A, B, and C on the graph at right lie on the same line.

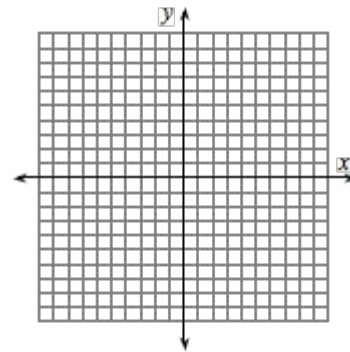
- Name the points A, B, and C using (x, y) notation.
- Find two more points that lie on the same line.
- Does the point $(7, 5)$ lie on the line? How can you tell?



8 Exceeds
 7 Fully Me
 6 Mostly I
 5 Nearly I
 4 Develop

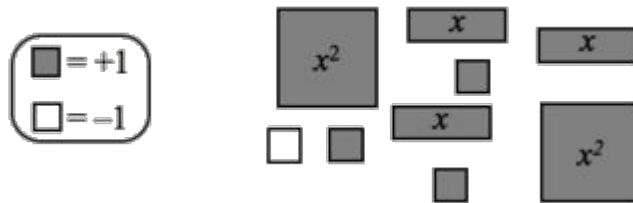
6.) Graph the equation $y = -1x + 2$ using the table below.

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



8 Exceeds
 7 Fully Met
 6 Mostly m
 5 Nearly m
 4 Developii

7.) Write an algebraic expression representing the collection of algebra tiles shown below.



8 Exceeds
 7 Fully Me
 6 Mostly n
 5 Nearly n
 4 Develop

Bonus:

While waiting for a bus, Todd decided to play with consecutive numbers (whole numbers that increase in order without skipping, such as 5, 6, and 7). His work is shown below:

$$5 + 6 + 7 = 18$$

$$6 + 7 + 8 = 21$$

$$7 + 8 + 9 = 24$$

8 Exceeds
 7 Fully Met
 6 Mostly n
 5 Nearly n
 4 Developi

- Write the next three entries.
- Describe any patterns you notice in the answers.
- Can three consecutive numbers add up to 60? If so, find the numbers. If not, explain why not.
- Can three consecutive numbers add up to 8? Again, explain why or why not.