You Try:
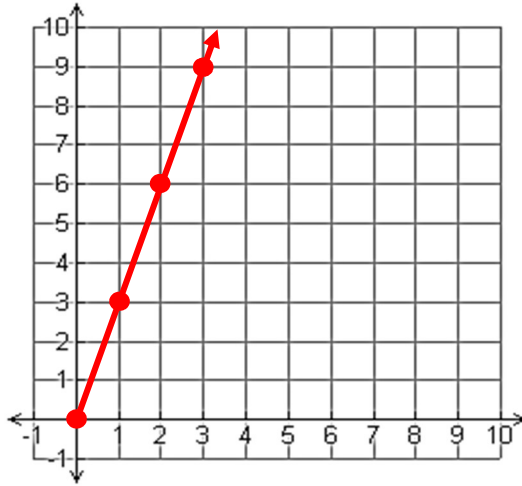
Use the direct variation equation to complete the table and then graph the ordered pairs.
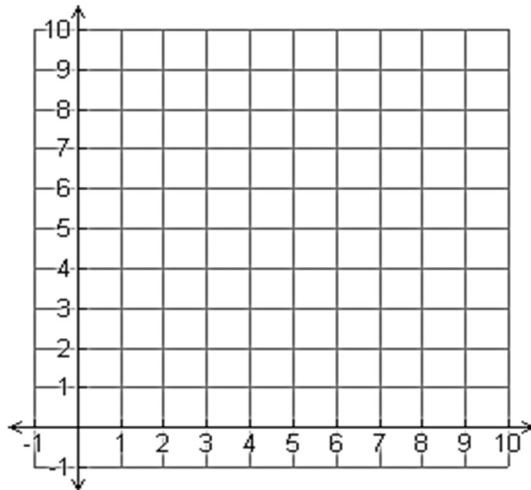
1) $y = 3x$

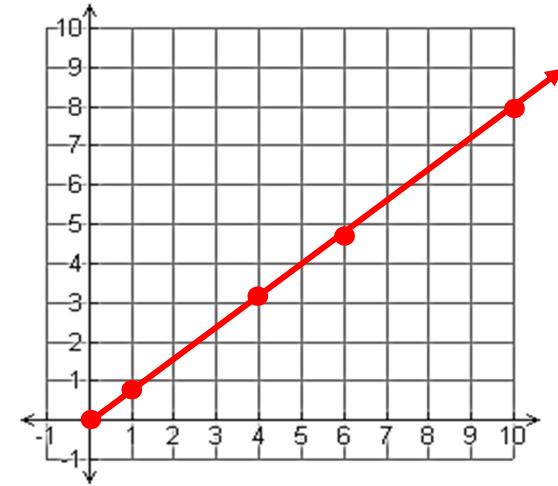| x	0	1	2	3
y	0	3	6	9

2) $y = \frac{1}{2}x$

x		2	6	8	
y	0				5

3) $y = 0.8x$

x	0	1	4	6	10
y	0	.8	3.2	4.8	8

4) $y = 2x$

x	0	2	3	4	
y					10
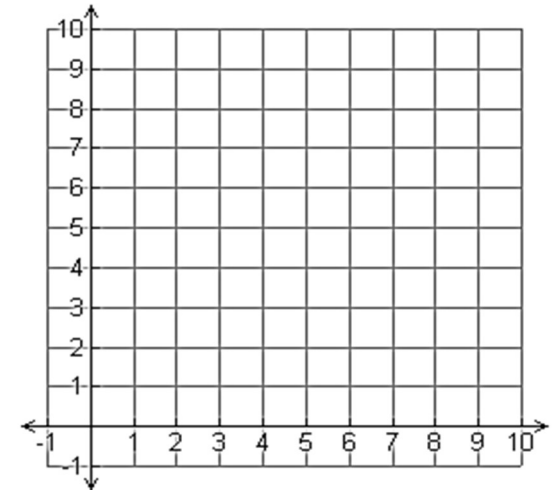
Direct Variation in the REAL World

An iPod Nano can hold up to 16 gigabytes (GB) of data.

1) How many gigabytes can be stored on 0 Nanos? **0**

How many on 1 Nano? **16**

How many on 5 Nano? **80**

How many on 12 Nano? **192**

2) If you have enough iPod Nanos to hold 80 GB, how many iPod Nanos do you have? **5**

3) Complete the chart:

x (# of iPods)	0	2	4	10	25
y (total GB)	**0**	**32**	64	160	**400**

4) What is the direct variation equation (in terms of y=kx): **y = 16x**

5) Based on this problem, answer the following:

a) In words, what does the input (x) represent? **# of iPod Nanos**

b) In words, what does the output (y) represent? **# of GB Total**

c) In words, what does the constant (k) represent? **# of GB per Nano**

6) As the number of iPods increases, the total number of GB **Increases**

7) Look at the values in the table above. Write each set of (x,y) values as an ordered pair

(0, 0)   **(2, 32)**   **(4, 64)**   **(10, 160)**   **(25, 400)**

8) Graph the ordered pairs:
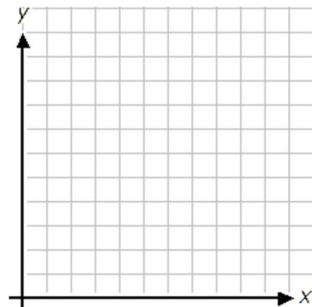
Math 6 – Unit 4: One-Step Equations and Inequalities Review #2

Knowledge and Understanding

1) When solving equations, why is it important to substitute your solution into the equation at the end. _____

_____

2) What is the difference between an open circle and a closed circle in an inequality?

_____

_____

Proficiency of Skills

Solve each equation. Remember to show all work!

3) $t - 1 = 11\frac{1}{2}$ 4) $\frac{n}{5} = 10$ 5) $r + 7 = 49$

Solve and graph the solution to each inequality. Show all work!

6) $k \leq 7$ 7) $a > 120$ 8) $x \neq 3$