

**Algebra 1 FER #2**  
**Fall 2015**

Name \_\_\_\_\_

Period \_\_\_\_\_

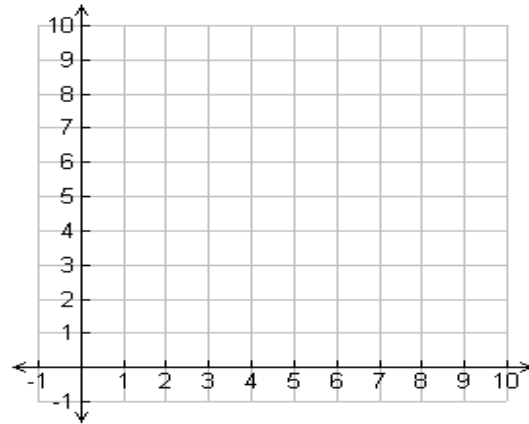
SHOW ALL WORK FOR CREDIT AND BOX YOUR ANSWER

1) Relate 4 representations of a linear function. (Skill #17)

Andrew has a goal of adding 2 miles a week to his training runs over summer break. He can already run for 4 miles by the start of the first week of summer break.

a) Describe this scenario using a table of values with three entries. **Label the columns.**

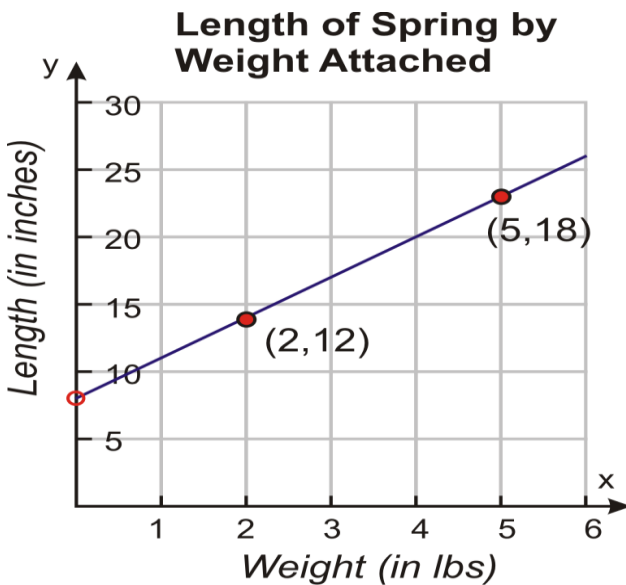

b) Describe this scenario by graphing it. **Label the axes.**



c) Describe this scenario with an equation. **Define the variables.**

2) Identify key features and their meaning of a linear graph. (Skill #18)

For the graph shown below:



a) Identify the y-intercept and explain its meaning for the context given.

b) Identify the slope and explain its meaning for the context given.

c) Describe if the graph is increasing, decreasing or constant.

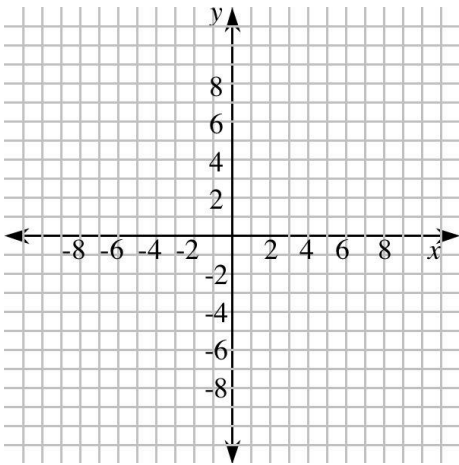
3) Linear Word Problem (Skill #8, 19)

Alex is riding his motorcycle to his grandmother's house, which is 62 miles away. He has already ridden 2 miles. If he is traveling at a rate of 30 miles per hour, how much longer will it take him to arrive at his destination?

4) Solving systems of linear equations. (Skill #20)

Use each method below to solve  $\begin{cases} 4x - y = -2 \\ y = 2x + 6 \end{cases}$

a) Graphing Method



POI (     ,     )

b) Substitution Method

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c) Elimination Method

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5) Graph systems of linear inequalities. (Skill #21)

$$\begin{cases} y > -\frac{2}{3}x \\ 5x - 4y \leq 20 \end{cases}$$

