6th Grade Math Common Assessment Answer Key: Chapter 10 (14 Points)

Name: _____ Date _____

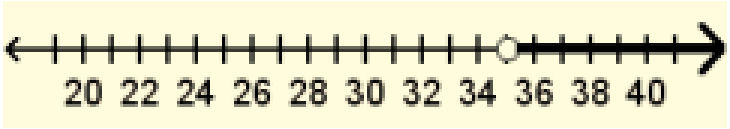
6.EE.8

1.) Savannah's daily commute from home to work is more than 35 miles each way.

a. Write an inequality that represents this situation. (1 Point)

The inequality $d > 35$, where d is the number of miles Savannah commutes to work, represents the situation.

b. Graph the solutions of the inequality from part a. (1 Point)



2.) All of the students in a class are older than 10 years. What inequality represents the ages x of the students? (1 Point)

A. $x < 10$
B. $x \leq 10$
C. $x > 10$
D. $x \geq 10$

6.EE.9

3.) The table below shows the balance of a savings account after t weeks, where money is being withdrawn at a constant rate. Peter can find the balance of the account based on how many weeks have passed. **What are the independent and dependent variables, and how do they change?** (1 Point)

Time (weeks), *t*	Balance (dollars), *b*
0	850
1	800
2	750
3	700

A. As the independent variable t increases by 1, the dependent variable b increases by 50.
B. As the independent variable t increases by 1, the dependent variable b decreases by 50.
C. As the independent variable b increases by 1, the dependent variable t increases by 50.
D. As the independent variable b increases by 1, the dependent variable t decreases by 50.

6.EE.9

4.) Gloria is an artist. She sets a goal to paint 2 pieces every month. She has already painted 5 pieces. The number of pieces Gloria paints depends on the number of months she spends painting. **Which statements describe the number of pieces p Gloria paints over t months if she meets her goal? Select all correct answers.** (3 Points)

A. p is the independent variable and t is the dependent variable.
B. t is the independent variable and p is the dependent variable.
C. p increases by 2 as t increases by 1.
D. t increases by 2 as p increases by 1.
E. The equation representing the situation is $p = 2t + 5$.

6.EE.9 and 6.RP.3

5.) The table below shows the number of words w a person types after t minutes. The number of words typed per minute is a constant 52.

Time (minutes), *t*	Number of words, *w*
0	0
1	52
2	104
3	156

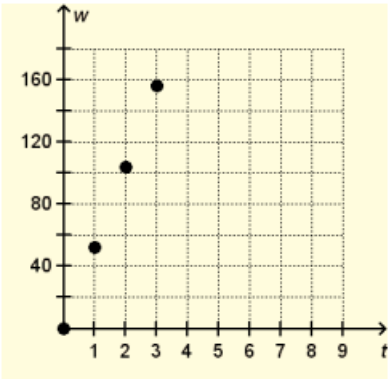
a. The number of words typed is determined by how many minutes the person spends typing. What are the independent and dependent variables?

Independent Variable: t (1 Point)

Dependent Variable: w (1 Point)

b. Graph the values from the table.

(4 Points)



c. Write an algebraic expression that represents the situation.

w = 52t (1 Point)