6.EE. 5

Use substitution to prove the solution. Be sure to show all 3 to support a viable argument. Be sure to state the correct solution (m= \_\_\_\_\_\_\_ n = \_\_\_\_\_\_\_).

(7 points each)

1) m - 25 = 11; 34, 36, 38 2) 4.6 = 0.7 + n; 5.3, 4.1, 3.9

**6.EE.7**

Solve using algebraic steps; then check your solution. (4 points each)

3) n - 2.7 = 5.6 4) 9.1 = x + 3.5 5) 27.2 = 4m

**6.EE.9**

Vernon just got an iPod and loves to download music into his iTunes library. He already had 1 song in his library and downloads three new songs every week. (10 points)

A. Identify the independent variable \_\_\_\_\_\_\_\_\_\_\_\_ and the dependent variable\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

B. Display the relationship between the number of weeks (*x*) and the number of songs in Vernon’s library (*y*) using an equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, table (below), and graph (below).

C. After 8 weeks, how many songs will Vernon have in his library? Explain how you determined your answer. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| x |  | y |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**6.EE.7**

Gwen sold 34 cupcakes at the bake sale yesterday, and she sold more at the booth today. The total that Gwen sold was 96 cupcakes. (2 points each)

6) First write an equation with x being the amount of cupcakes sold today.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) Second, determine how many cupcakes were purchased today using any method.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6.EE.9**

Your Math class has earned a pizza party! Each student who is eating pizza has to pay a small price to help with the cost and he/she will get 2 slices of pizza, soda, and dessert.  Each box of pizza has 8 slices of pizza in it.  The table below shows the amount of money has been collected with each box of pizza sold. (7 points)

|  |  |
| --- | --- |
| **Boxes of Pizza (*b*)** | **Money Collected (*m*)** |
| 1 |  |
| 2 | $16 |
| 3 | $24 |
| 4 |  |
| 5 | $40 |
| 6 |  |

8)   Fill the missing values for money collected (*m*) based on number of pizza boxes sold.

9)    Write an equation to represent the relationship between boxes of pizza (*b*) and money collected (*m*).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10)    How many students does one box of pizza feed? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11) How much does a student have to pay for the pizza lunch? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_