

Standard Form

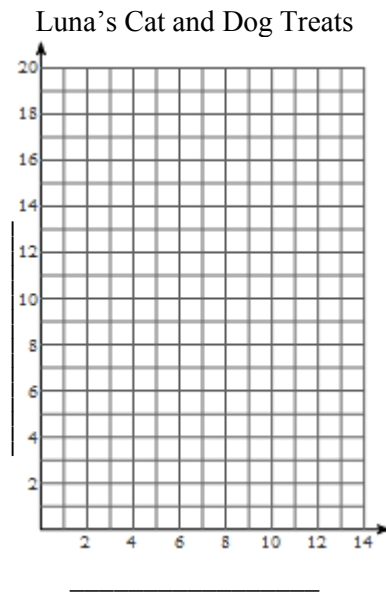
1. Luna is buying cat treats and dog treats for the pets at the Humane Society. The cat treats cost \$3 and the dog treats cost \$2. Luna has \$36 to spend. If she were to spend **exactly** \$36, how many cat treats and dog treats could she buy?

Make a table, graph, and equation representing all possibilities for how many cat treats and dog treats Luna could buy.

2. Complete the table below:

Cat Treats	Dog Treats

3. Label the axes and graph the data from your table.



4. Given that Luna wants to spend exactly \$36, would it be possible for her to buy only 1 cat treat? Why or why not?

5. Write an equation that represents the total cost of Luna's cat and dog treats:

6. What do the numbers represent in your equation?

7. What do the variables represent in your equation?

8. What is the Standard Form of a linear equation? \_\_\_\_\_

9. What is the Slope-Intercept Form of a linear equation? \_\_\_\_\_

10. How are Standard Form and Slope-Intercept Form different?

**Circle whether the equation is in standard form or slope-intercept form:**

11.  $y = 2x - 3$

**Slope-Intercept Form**

**Standard Form**

12.  $5x - 10y = 30$

**Slope-Intercept Form**

**Standard Form**

13.  $4x - 2 = y$

**Slope-Intercept Form**

**Standard Form**

14.  $y = 7 - 2x$

**Slope-Intercept Form**

**Standard Form**

**Circle which equation (slope-intercept form or standard form) best models the situation:**

15. In his job selling vacuums, Joe initially makes \$500 plus \$20 for each vacuum he sells. Which equation best models the situation?

A.  $y = 20x + 500$

B.  $-20x + y = 500$

16. The Tree Hugger Granola Company makes trail mix with candies and nuts. The cost of candies is \$2 per pound and the cost of the nuts is \$1.50 per pound. The total cost of the trail mix is \$540. Which equation best models the situation?

A.  $y = -\frac{4}{3}x + 360$

B.  $2x + 1.5y = 540$

17. Pip buys 5 almonds and 3 cashews from the local squirrel grocery store and spends \$1. Which equation best models the situation?

A.  $y = -\frac{5}{3}x + \frac{1}{3}$

B.  $5x + 3y = 1$

18. Molly owes her friend \$20, but earns \$3 every day for babysitting. Which equation best models the situation?

A.  $y = 3x - 20$

B.  $-3x + y = -20$