

3.2.D1 – STANDARD FORM OF LINEAR EQUATIONS

Past due on: _____ Period: _____

Define variables and write an expression, in function notation, to represent each situation. Refer to the 3.2 example “Writing & Solving a Function in Two Variables” in the Chapter 3 Summary.

1. A farmer’s market sells apples for \$0.75 per pound and oranges for \$0.89 per pound. Write an expression to represent the total amount the farmer’s market can earn selling apples and oranges.

Let $x =$ _____ & $y =$ _____

Expression: _____

If the farmer sells 100 pounds of apples and 120 pounds of oranges, how much will he earn?

2. A photo printing website sells 8×10 prints for \$5 and 3×5 prints for \$2. Write an expression to represent the total amount the website can earn selling 8×10 and 3×5 prints.

Let $x =$ _____ & $y =$ _____

Expression: _____

If a family buys 10 8×10 prints and 20 3×5 prints, what will be the total amount the photo printing website charges?

Define variables and write an equation to represent each situation. Refer to the 3.2 example “Writing & Solving a Function in Two Variables” in the Chapter 3 Summary.

3. A florist sells carnations for \$10 a dozen and lilies for \$12 a dozen. During a weekend sale, the florist’s goal is to earn \$650. Write an equation that represents the total amount the florist would like to earn selling carnations and lilies during the weekend sale.

Let $x =$ _____ & $y =$ _____

Equation: _____

If the florist sells 5 dozen carnations, how many lilies must she sell in order to reach her weekend sales goal?

4. A bakery sells bagels for \$0.85 each and muffins for \$1.10 each. The bakery hopes to earn \$400 each day from these sales. Write an equation that represents the total amount the bakery would like to earn selling bagels and muffins each day.

Let $x =$ _____ & $y =$ _____

Equation: _____

If the bakery sells 274 muffins, how many bagels must the bakery sell in order to earn \$400?

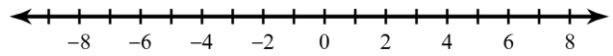
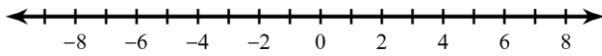
Solve the function for the given input value. Refer to the 2.1 example “Determining the Solution to a Linear Equation Using Function Notation” in the Chapter 2 Summary.

5. You are buying orange juice for \$4.50 per container and have a gift card worth \$7. The function $f(x) = 4.50x - 7$ represents your total cost $f(x)$ if you buy x containers of orange juice and use the gift card. How much do you pay to buy 4 containers of orange juice?

Solve each inequality and graph its solution set. Refer to the 2.3 example “Solving an Inequality w/a Negative Rate of Change” in the Chapter 2 Summary.

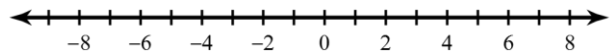
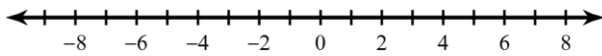
6. $-28 \geq -6x + 8$

7. $-10x + 5 \geq -25$



8. $-5x - 9 < -14$

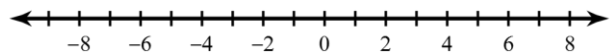
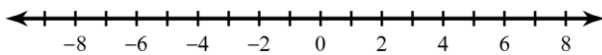
9. $-5(-5 + x) \geq 45$



Solve each compound inequality and graph its solution set. Refer to the 2.4 example “Solving Compound Inequalities” in the Chapter 2 Summary.

10. $6x - 1 < -7$ or $2x + 1 > 5$

11. $3 < 4x - 5 \leq 15$



12. $-9 \leq 3x + 6 \leq 18$

13. $4x - 9 < 7$ or $3x - 10 \geq 2$

