Name: _____

3.3.D1 – LITERAL EQUATIONS

Past due on: _____ Period: _____

Determine the x-intercept and the y-intercept of each equation. Then convert each equation from standard form to slope-intercept form and identify the slope. *Refer to the 3.2 example "Identify the x-Intercept and y-Intercept of an Equation w/Two Variables" and the 3.3 example "Converting Equations between Standard Form and Slope-Intercept Form" in the Chapter 3 Summary.*

1. $4x + 6y = 48$ x-intercept: _____ y-intercept: _____ Slope: _____

2. $-4x + 9y = 45$ x-intercept: _____ y-intercept: _____ Slope: _____

3. $6x - 2y = -52$ x-intercept: _____ y-intercept: _____ Slope: _____

Convert each equation from slope-intercept form to standard form. *Refer to the 3.3 example "Converting Equations between Standard Form and Slope-Intercept Form" in the Chapter 3 Summary.*

4. $y = -4x + 2$

5. $y = \frac{2}{3}x - 6$

6. $y = -\frac{1}{2}x - 3$

The basketball booster club runs the concession stand during a weekend tournament. They sell hamburgers for \$2.50 each and hot dogs for \$1.50 each. They hope to earn \$900 during the tournament. The equation $2.50b + 1.50h = 900$ represents the total amount the booster club hopes to earn. Use this equation to determine each unknown value.

7. If the booster club sells 0 hamburgers during the tournament, how many hot dogs must they sell to reach their goal?

8. If the booster club sells 168 hot dogs during the tournament, how many hamburgers must they sell to reach their goal?

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

9. A florist sells daisies for $8.99 a dozen and roses for $15.99 a dozen. Write an expression that represents the total amount the florist can earn selling daisies and roses.

   Let x = _____ & y = _____

   Expression: _____

10. The hockey booster club is selling winter hats for $12 each and sweatshirts for $26 each. Write an expression that represents the total amount the booster club can earn selling hats and sweatshirts.

    Let x = _____ & y = _____

    Expression: _____

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.*

11. An electronics store sells DVDs for $15.99 and Blu-ray discs for $22.99. The store hopes to earn $2000 each week from these sales. Write an equation to represent the total amount the store would like to earn each week.

    Let x = _____ & y = _____

    Equation: _____

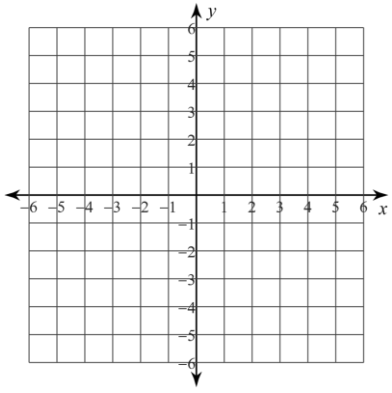
12. Ling is selling jewelry at a craft fair. She sells earrings for $5 each and bracelets for $7 each. She hopes to earn $300 during the fair. Write an equation to represent the total amount Ling would like to earn during the fair.

    Let x = _____ & y = _____

    Equation: _____

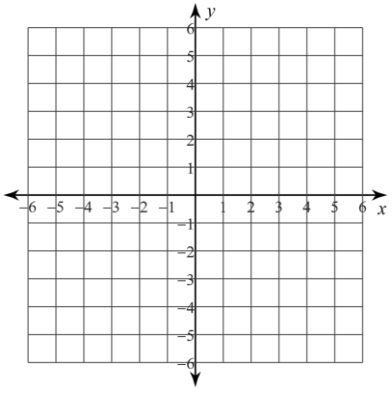
Determine the x-intercept and y-intercept. Then graph the equation. *Refer to the 3.2 examples "Identify the x-Intercept and y-Intercept of an Equation w/Two Variables" and "Rewriting an Equation w/Two Variables to Solve for One Variable" in the Chapter 3 Summary.*

13. $y = -2x + 5$



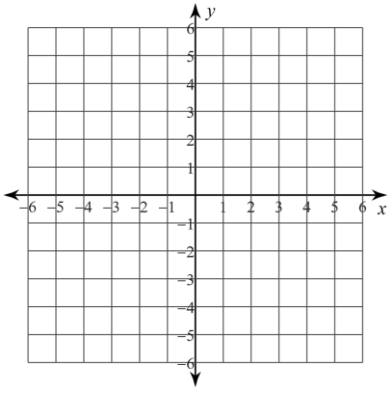
x-int: _____ *y-int:* _____

14. $y = 3x - 3$



x-int: _____ *y-int:* _____

15. $y = -\frac{1}{2}x + 2$



x-int: _____ *y-int:* _____