Standard Math 1 5.5 Standard Form Unit 2 Day 5

**Standard Form of a Linear Equation:** The equation Ax + By = C, where A, B, and C are integers and A and B are not both zero.

**X-intercept:** The x-coordinate of a point where the graph crosses the x-axis.

Ex: (x, 0)

**Y-Intercept:** The y-coordinate of a point where the graph crosses the y-axis.

Ex: (0, y)

Ax +By = C

**Finding X- and Y-Intercepts**

Use the cover-up method to solve for the x- and y-intercepts of the following equations, and then graph.

1. 2x + 3y = 12
2. 6x – 5y = 30

 x-int: \_\_\_\_\_\_\_\_\_ x-int: \_\_\_\_\_\_\_\_\_

 y-int: \_\_\_\_\_\_\_\_\_ y-int: \_\_\_\_\_\_\_\_\_

1. 10x + 12y = 48
2. 2x – 7y = 21

X-int: \_\_\_\_\_\_ y-int: \_\_\_\_\_ X-int: \_\_\_\_\_\_ y-int: \_\_\_\_\_

**Graphing Horizontal and Vertical Lines**

What is the graph of each equation?

1. x = 3
2. y = 3



1. x = -1
2. y = -2

**Transforming into Standard Form**

What is the equation of the line in standard form?

1. y = 1/2x – 6
2. y – 3 = 2 (x + 3)

**Writing the Equation of a Line in Three Different Forms**

Given (3, 0) and (4, 2), write the equation in the following forms:

1. Point-Slope Form:
2. Slope Intercept Form:
3. Standard Form:

**Modeling Using Equations**

A media download stores sells songs for $1 each and movies for $12. You have a gift card for $60. Write and graph an equation that describes the items you can purchase. What are three combinations of numbers of songs and movies you can purchase?