Name:

BLM 6.2.1

Practice: The Equation of a Line in Standard Form: Ax + By + C = 0

1. Rearrange each equation to isolate the variable indicated. Which step did you perform first each time?

a)
$$d = st$$

b)
$$P = 6s$$

c)
$$A = P + I$$

d)
$$x + y = 4$$

2. Express each equation in the form y = mx + b.

a)
$$x + y + 6 = 0$$

b)
$$2x + y = 0$$

c)
$$5x + y - 3 = 0$$

d)
$$x + y - 1 = 0$$

3. Isolate the y term, then write each equation in the form y = mx + b.

a)
$$x + 3y + 1 = 0$$

b)
$$4x + 2y - 3 = 0$$

c)
$$x + 3y = 0$$

d)
$$5x - y - 1 = 0$$

e)
$$6x - 5y + 1 = 0$$

f)
$$4x + 2y = 0$$

4. Write each equation in slope *y*-intercept form.

a)
$$7x + y - 4 = 0$$

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b)
$$3x + 2y - 8 = 0$$

c)
$$x-4y-2=0$$

d)
$$4x - 3y = 0$$

5. Identify the slope and *y*-intercept of each line.

a)
$$x - 2y + 6 = 0$$

b)
$$3x + 2y - 1 = 0$$

c)
$$3x + 8y + 16 = 0$$

d)
$$x - y = 0$$

6. Use the slope and *y*-intercept to graph each line from question 5.