

Write $y = \frac{3}{4}x + 2$ in standard form using integers.

$$4 \cdot y = 4 \left(\frac{3}{4}x \right) + 4 \cdot 2$$

$$4y = 3x + 8$$

$$\begin{array}{r} -3x \\ -3x + 4y = 8 \end{array}$$

$$-3x + 4y = 8$$

or

$$3x - 4y = -8$$

Page 1

Using the table below, write an equation in standard form to find the number of hours you would need to work at mowing lawns and delivering newspapers to make a total of \$130.

	Job	Amount Paid per Hour
m	Mowing Lawns	\$12
n	Delivering Newspapers	\$5

$$12m + 5n = 130$$

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Write $y = -\frac{2}{5}x + 1$ in standard form using integers.

$$5y = 5 \left(-\frac{2}{5}x \right) + 5 \cdot 1$$

$$5y = -2x + 5$$

$$2x + 5y = 5$$

Write $y = \frac{2}{3}x + 6$ in standard form using integers.

$$3 \cdot y = 3 \left(\frac{2}{3}x \right) + 3 \cdot 6$$

$$3y = 2x + 18$$

$$\begin{array}{r} -2x \\ -2x + 3y = 18 \end{array}$$

$$-2x + 3y = 18 \quad \text{or} \quad 2x - 3y = -18$$

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If you have two points, you can find the slope. Then use the slope and either point to write the slope-intercept form of the line.

Write an equation for the line that passes through $(-1, 4)$ and $(2, 3)$.

$$m = \frac{3-4}{2-(-1)}$$

$$m = \frac{3-4}{2+1} = -\frac{1}{3}$$

$$y - 3 = -\frac{1}{3}(x - 2)$$

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

$$\begin{array}{r} +3 \\ y = -\frac{1}{3}x + 3\frac{2}{3} \end{array}$$

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Write an equation for the line that passes through (2, 5) and (4, 6)

$$m = \frac{6-5}{4-2} = \frac{1}{2}$$

$$y - 6 = \frac{1}{2}(x - 4)$$

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

$$y = \frac{1}{2}x + 4$$

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Use what you know about solving equations to write these equations in slope-intercept form.

$$y - 5 = -2(x + 3)$$

$$y - 5 = -2x - 6$$

$$y = -2x - 1$$

$$y + 1 = \frac{3}{4}(x + 8)$$

$$y + 1 = \frac{3}{4}x + 6$$

$$y = \frac{3}{4}x + 5$$

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Use what you know about solving equations to write these equations in standard form.

$$3(y - 3 = \frac{2}{3}(x + 6))$$

$$3y - 3 \cdot 3 = 3(\frac{2}{3})(x + 6)$$

$$3y - 9 = 2(x + 6)$$

$$3y - 9 = 2x + 12$$

$$\begin{array}{r} -2x \\ -2x + 3y - 9 = 12 \end{array}$$

$$\begin{array}{r} -2x + 3y - 9 = 12 \\ +9 \quad +9 \\ -2x + 3y = 21 \quad \text{or} \quad 2x - 3y = -21 \end{array}$$

$$5(y + 1 = -\frac{1}{5}(x - 2))$$

$$5y + 5 \cdot 1 = 5(-\frac{1}{5})(x - 2)$$

$$5y + 5 = -(x - 2)$$

$$5y + 5 = -x + 2$$

$$5y = -x - 3$$

$$\begin{array}{r} +x \quad +x \\ x + 5y = -3 \end{array}$$

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homework:

page 301 # 27-35

page 307 # 20-30 even (*use your old homework, it already has point-slope form!)

page 308 # 40-52 even

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