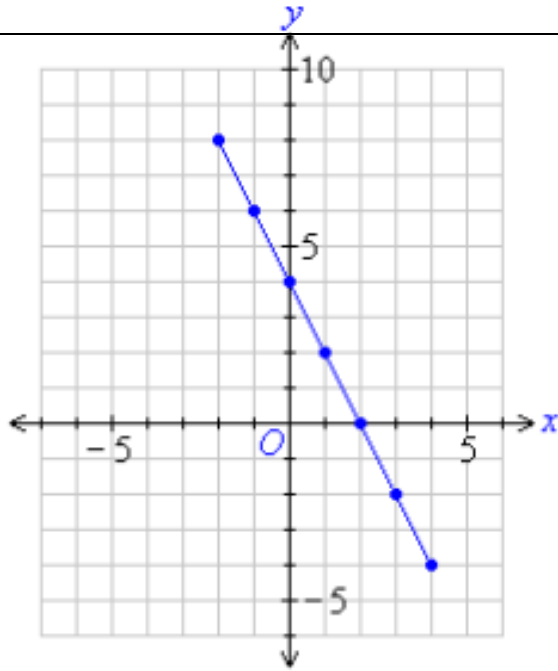name _____ block _____ Week x Week #30A: 4/24 – 5/1, 2015
Solve each problem. Make sure that you show ALL WORK involved in solving the problem in order to get full credit.

Write the equation of the line graphed above in:

Slope-Intercept: _____

Point-Slope: _____

Standard: _____

Write the equation of the line that is perpendicular to the line ←graphed here and goes through the point (-1,-1) in:
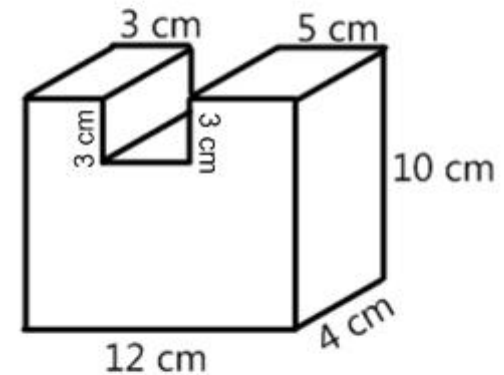
Slope-Intercept: _____

Point-Slope: _____

Standard: _____

The cost to mail a box of books can be modeled by the function $f(x) = 1.75x + 5.25$, where x is the number of books mailed. What could the y-intercept of the function represent?

Find the volume of the following figure:

3 cm   5 cm

3 cm   3 cm

10 cm

12 cm   4 cm

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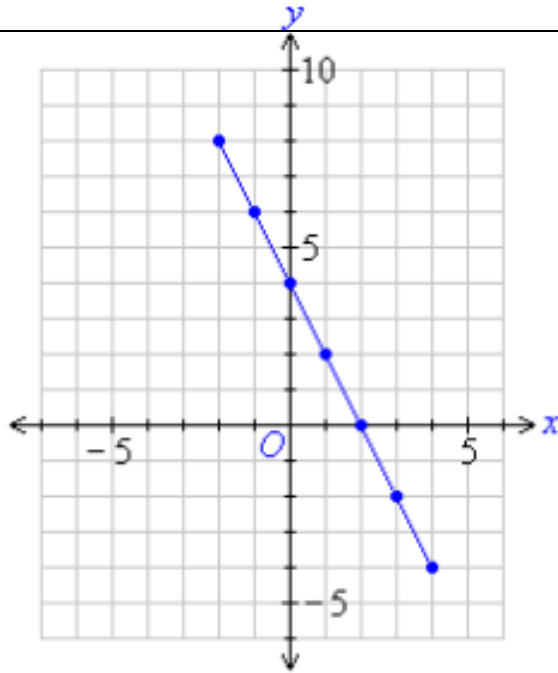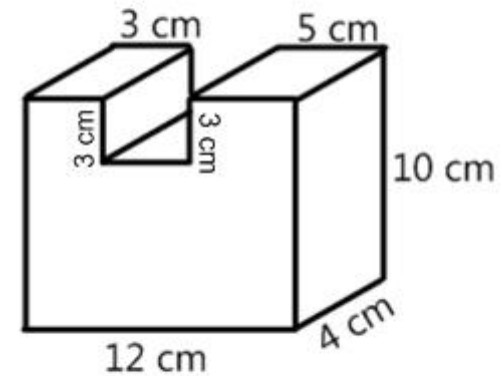
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Solve the following quadratic-linear system of equations using a method of your choice:

$$y + 1 = x$$
$$y = -x^2 + 2x + 5$$

Simplify:

- $\dfrac{(2^{-3})^{-1} d^{-2} e^0 f^5}{(2^{-2})^{-1} d^{-1} e^6 f^{-2}}$

- $4(2x - 2)^2$

Suppose you launch a model rocket with an upward starting velocity of v ft/s. You can use the equation $h = -16t^2 + vt$ to find the rocket's altitude h feet t seconds after launch. Suppose the upward starting velocity is 160 ft/s. When will the rocket hit the ground?

Mr. Dean drove 211 miles in 4 hours and 30 minutes. Find his rate in miles per minute.

Pop's Cycle Shop sells bicycles and tricycles. The number of bicycles is 1 less than 4 times the number of tricycles. All the bicycles and tricycles together have a total of 174 wheels. How many bicycles are there?

Solve (Round to the nearest hundredth if necessary):

$$7p^2 - 6p + 1 = 0$$

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