

You have 20 minutes to complete this quiz. No calculators allowed. Please show your work carefully! Good luck!

For numbers 1-4, write the equation of the line that is described. Put your final answer in slope-intercept form, if possible.

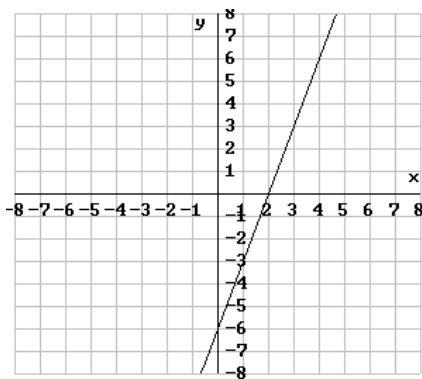
1. Slope $-\frac{4}{5}$, passes through $\left(0, -\frac{1}{7}\right)$

$$y = -\frac{4}{5}x - \frac{1}{7}$$

3. Passes through $(5,1)$ and $(-5,0)$

$$y = \frac{1}{10}x + \frac{1}{2}$$

2.



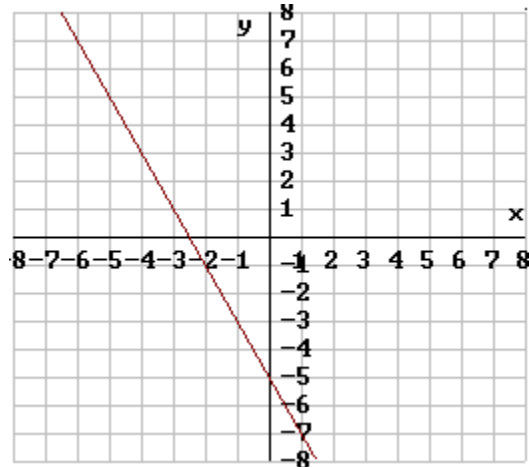
$$y = 3x - 6$$

4. Passes through $(8,4)$ and $(8,-2)$

$$x = 8$$

5. Sketch a graph of the equation $2x + y = -6$. (Hint: First solve for y .)

$$y = -2x - 6$$



Use the following information to answer problems 6 and 7:

An electronics store has experienced a linear drop in sales of computers since it opened. During their 5th year they sold 900 computers, but in their 8th year they only sold 600 computers.

6. Write a linear equation to express the number of computers sold, C , in terms of t , the number of years since the store opened.

$$C = -100t + 1500$$

7. Use your equation to predict how many computers the store will sell in its 10th year.
Please answer in a complete English sentence.

The store will sell 300 computers in its 12th year.