

Name: _____

Show all work

Period: _____ Date: _____

Warm-up on Nov. 21

Solve.

1. $-3x + 5 = 2$

$$\begin{array}{r} -5 \quad -5 \\ \hline -3x = -3 \\ \hline x = 1 \end{array}$$

2. $\frac{1}{3}x - 6 = 2$

$$\begin{array}{r} +6 \quad +6 \\ \hline \cancel{\frac{1}{3}x} = 8 \cancel{(3)} \\ \hline 1x = 24 \end{array}$$

Solve for y.

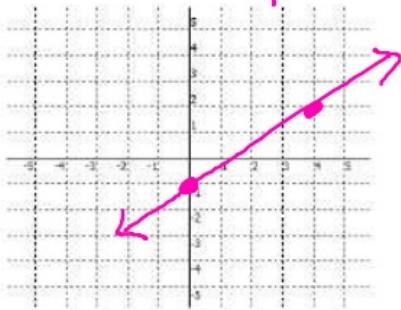
3. $2x + y = 8$

$$\begin{array}{r} -2x \quad -2x \\ \hline y = -2x + 8 \end{array}$$

Identify the slope and the y-intercept of each equation, then graph each line.

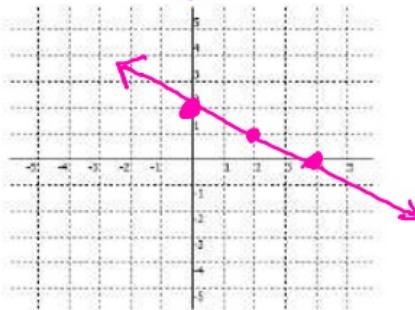
4. $y = \frac{3}{4}x - 1$

(y-intercept) $b = -1$
(slope) $m = \frac{3}{4}$



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

(y-intercept) $b = 2$
(slope) $m = -\frac{1}{2}$



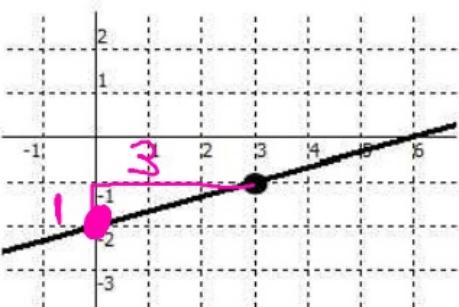
Identify the slope and the y-intercept of each graph,

then write the equation of the graph in $y = mx + b$ form.

6. (y-intercept) $b = -2$

(slope) $m = \frac{1}{3}$

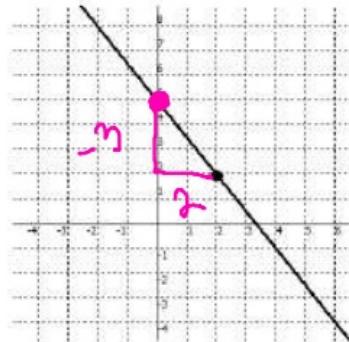
$y = \frac{1}{3}x - 2$
equation



7. (y-intercept) $b = 5$

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

$y = -\frac{3}{2}x + 5$
equation



Notes about Slopes

Name: _____
period: ____

$$\text{Slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{vertical change}}{\text{horizontal change}}$$

Identify each line with a positive slope
A, B, C

Identify each line with a negative slope
F, E, D

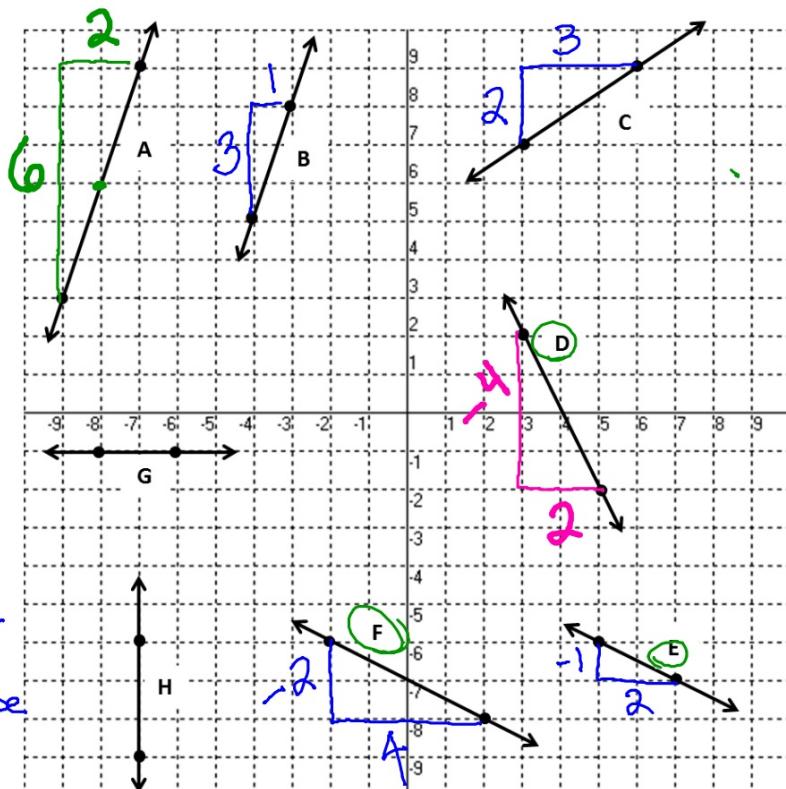
Determine the slope of each line

$$A \frac{6}{2} = 3 \quad E \frac{-1}{2}$$

$$B \frac{3}{1} \quad F \frac{-2}{4} = -\frac{1}{2}$$

$$C \frac{2}{3} \quad G \frac{0}{2} \text{ zero slope}$$

$$D \frac{-4}{2} = -2 \quad H \frac{3}{0} \text{ undefined slope}$$



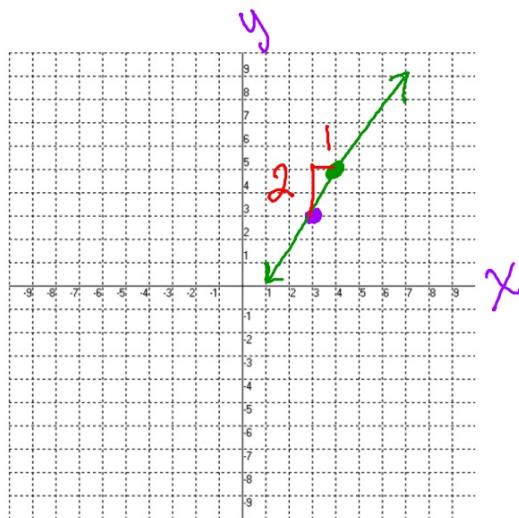
Identify the lines with the same slope

A, B E & F

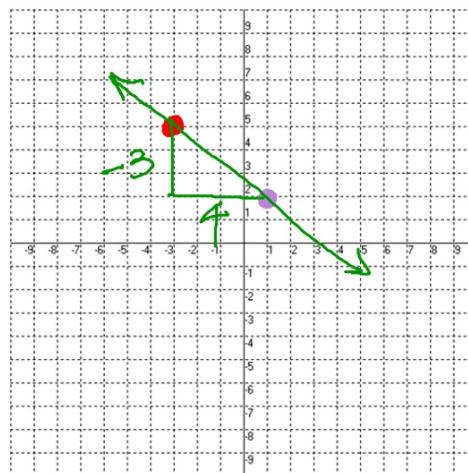
B or C Which line is steeper?
(circle each correct answer)
 D or E

Determine the slope of the line that passes through each pair of points

1. $(3, 3)$ and $(4, 5)$



2. $(-3, 5)$ and $(1, 2)$



$$\text{Slope} = \frac{2}{1}$$

$$\text{Slope} = -\frac{3}{4}$$