

Solving Practice:

- Complete the following on a sheet of scrap paper.

a) $2a + 7 = a - 2$

$$2a + 7 - a = -2$$

$$a = -2 - 7$$

$$= -9$$

b) $2(m + 5) = 3m - 4$

$$2m + 10 = 3m - 4$$

$$10 = m - 4$$

$$14 = m$$

c) $\frac{x}{2} + 4 = 7$

$$\frac{x}{2} = 3$$

$$x = 6$$

Feb 6-7:50 PM

0.4 Slope and Linear Models



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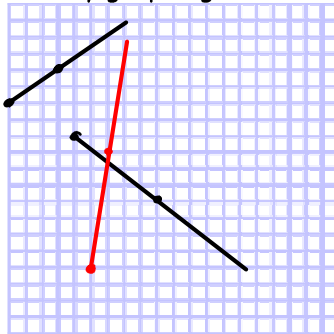
Slope Race

To play the slope game you need to recall how to graph a line with various slopes...try graphing lines with the following slopes

$$m = \frac{2}{3}$$

$$m = \frac{-4}{5}$$

$$m = \frac{7}{1}$$



Recall:
slope = $\frac{\text{rise}}{\text{run}}$

For the game you and a partner need one handout, one die, one ruler and two coloured pens.
LET THE GAME BEGIN

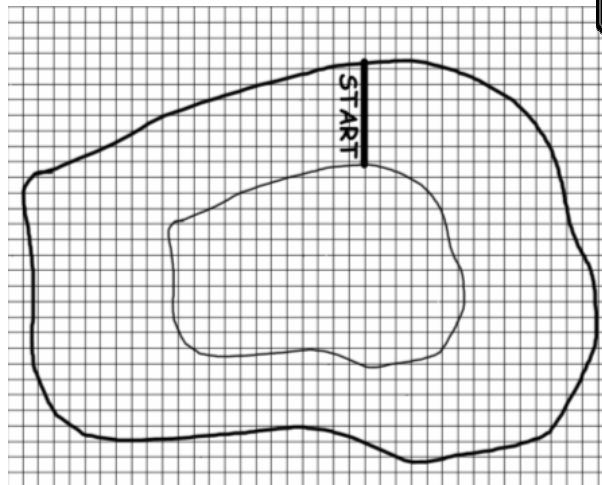
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Positive Slope
up and right $\frac{+rise}{+run}$

OR
Down and left $\frac{-rise}{-run}$

Negative Slope
down and right $\frac{-rise}{+run}$

OR
up and left $\frac{+rise}{-run}$



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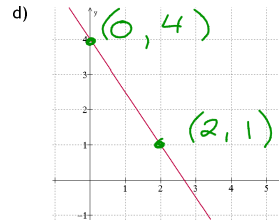
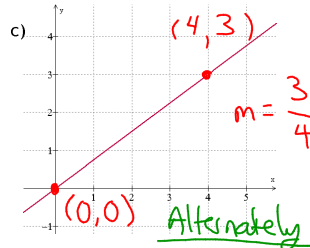
Ex 1 Finding Slope:

State the slope of each of the given linear models $m = \text{slope}$

a) $y = 3x - 2$
 $m = 3$

b) $7x - 5y - 20 = 0$

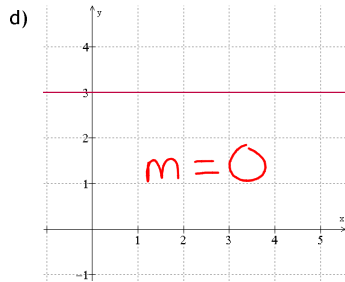
$y = mx + b$
 $m = \text{slope}$
 $b = y\text{-int}$
 $7x - 20 = 5y$
 $5y = 7x - 20$
 $y = \frac{7}{5}x - \frac{20}{5}$
 $m = \frac{7}{5}$



Alternately
 $m = \frac{3-0}{4-0}$
 $= \frac{3}{4}$

$m = \frac{1-4}{2-0}$
 $= \frac{-3}{2}$

Sep 9-11:56 AM



e) Between points $A(3,2)$ & $B(5,6)$

$m = \frac{y_2 - y_1}{x_2 - x_1}$
 $= \frac{6 - 2}{5 - 3}$

f) Between points $A(3,-3)$ & $B(-2,-5)$

$m = \frac{-3 - (-5)}{3 - (-2)}$
 $= \frac{-3 + 5}{3 + 2}$
 $= \frac{2}{5}$

$= \frac{4}{2}$
 $= 2$

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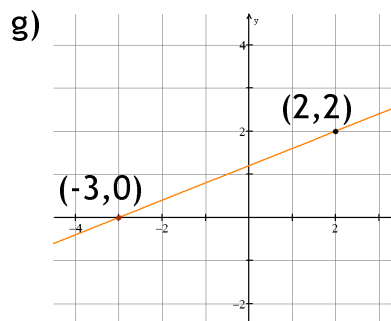
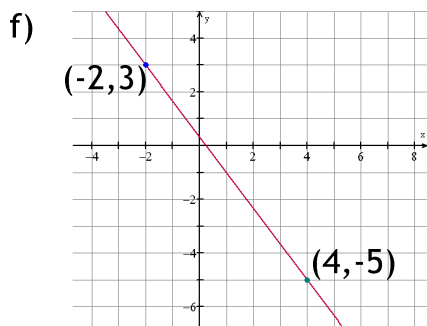
Practice time:

Determine the slope of each of the following linear models:

a) $y = -\frac{1}{2}x + 4$ b) $2x - 5y + 15 = 0$ c) $9x + 3y - 4 = 0$

d) $A(-1,0)$ & $B(5,-6)$

e) $A(-2,-3)$ & $B(5,-8)$



Answers

Sep 9-12:02 PM

Homework
Start Review Handouts:
What Is the Advantage....
Double Cross

Jan 31-6:24 PM