P. 4 Linear Functions

Objectives: 4) I can find the slope between two points.

5) I can write a linear equation given a point and slope.

6) I can write a linear equation given two points.

Aug 3-2:03 PM

Equations of Lines

Three Types:

1) Point-slope form: _____

2) Slope-intercept form:_____

3) General Form:_____

Equation for slope:

Aug 27-11:07 PM

Write the *point-slope* form equation for the given point and slope.

(-3, 4) and m = 3

Write the *slope-intercept* form equation for the given point and slope.

(2, -2) and m = 2

Aug 27-11:10 PM

Write the *slope-intercept* form equation for points given.

(1, -3) and (-2, 6)

Write the *general form* equation for the given two points.

(0, -2) and (-1, 4)

Aug 3-2:08 PM

Find the *slope-intercept* equation for the line.

$$3x - 4y = 11$$

Aug 3-2:09 PM

Grade of a Highway (GROUP WORK)

I-70 west of Denver has a section posted as a 6% grade. This means that for a horizontal change of 100 ft the is a 6 ft vertical change. (Hint: Draw a picture)

a) Find the slope of this section of the highway.

b) What is the horizontal distance required to climb 250 ft?

c) A sign along the highway says 6% grade for the next 7 miles. Estimate how many feet of vertical change there are over the 7 miles. (5280 ft = 1 mile)

Aug 3-2:30 PM