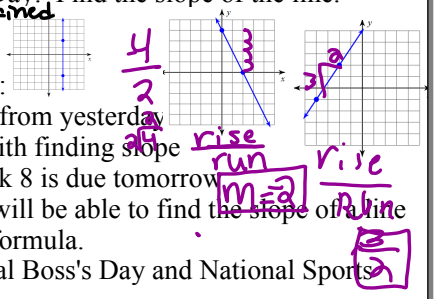
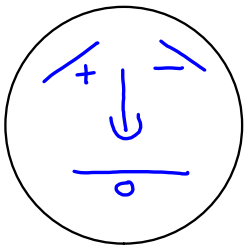
Problem of the Day: Find the slope of the line.



Plan for the Day:
Finish the notes from yesterday
More practice with finding slope
Homework Week 8 is due tomorrow
Objective: We will be able to find the slope of a line using the slope formula.
Today is National Boss's Day and National Sports Day!!

SLOPE MAN



Example 3: Find the rate of change of the line passing through the points (1, 5) and (-2, -7).

slope

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-7-5}{-2-1} = \frac{-12}{-3} = 4 = m$

Example 4: Find the slope of the line passing through the points (-2, 5) and (-2, -3).

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-3-5}{-2+2} = \frac{-8}{0} = \text{undefined} = m$

Example 5: Find the slope of the line for the line represented by the T-chart below.

x	y
-1	-5
0	-2
1	1
2	4

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{4-1}{2-1} = \frac{3}{1} = 3 = m$

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

$m = \frac{4+5}{2+1} = \frac{9}{3} = 3$

Example 6: Find the slope of the line between the points (-6, 5) and (9, 2).

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5-2}{-6-9} = \frac{3}{-15} = \frac{-3}{15} = \frac{-1}{5}$