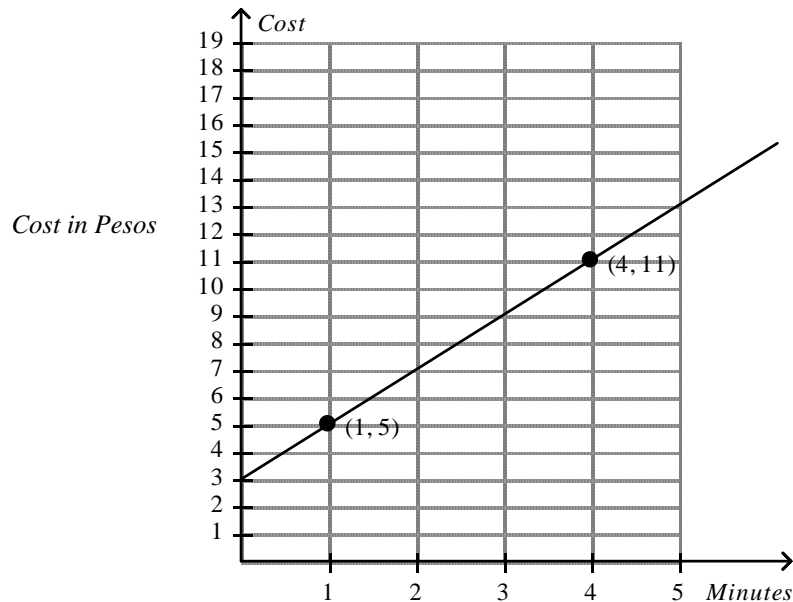


PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** February 4 to February 8**Day:** Monday

RISD Objective: Given a graph or a table of values, students will be able to write a linear equation that describes the information.

PROBLEM #96

Charlie is visiting Spain, and he wants to call home to New Mexico. The phone company charges a fixed charge for the connection and a certain amount for each minute as modeled by the following graph. Write the equation that models the cost of a call for x number of minutes.



MODEL SOLUTION #96

1) To find the slope, use the slope formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$

(1,5) (4,11)

$$m = \frac{11 - 5}{4 - 1} = \frac{6}{3} = 2$$

Slope = 2

2) Use the point-slope form to find the equation:

$$y - y_1 = m(x - x_1)$$

Choose either point: e.g. (1,5)

$$y - 5 = 2(x - 1)$$

$$y - 5 = 2x - 2 \quad \text{Distribute}$$

$$y = 2x + 3 \quad \text{Add five to both sides}$$