

PROBLEM-OF-THE-DAY: ALGEBRA 1

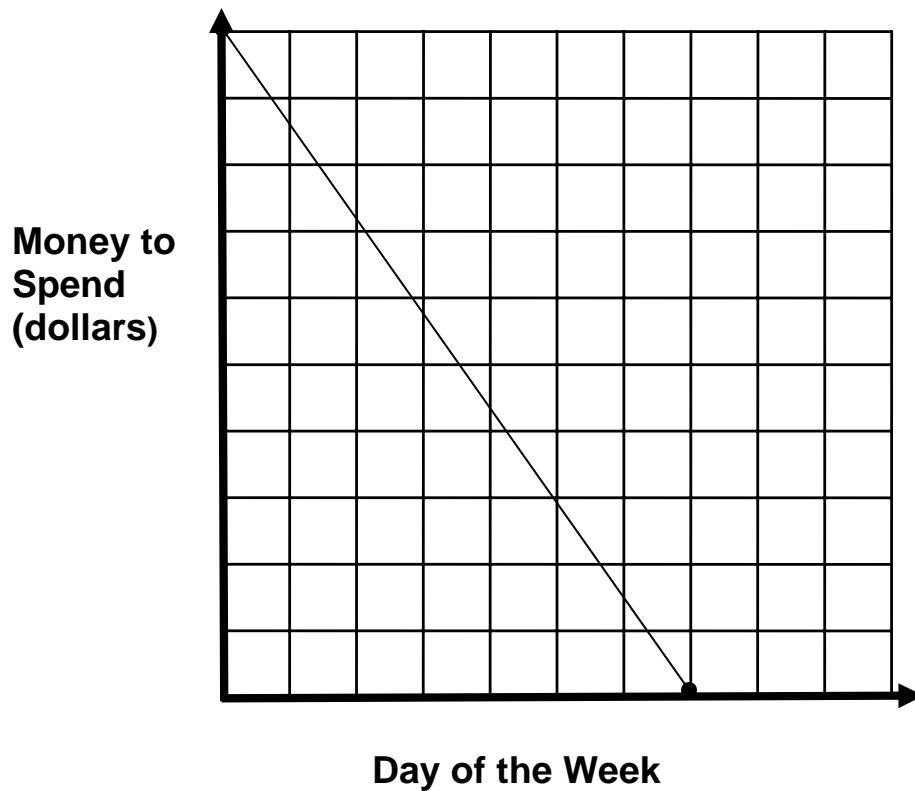
WEEK: February 4 to February 8

Day: Tuesday

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

PROBLEM #97

The graph below show the amount of money Juan has left out of his allowance for each day of the week.



Write the linear equation that represents Juan's spending allowance.

MODEL SOLUTION #97

1. Identify 2 points: **(0, 10)(7,0)**

2. Use the slope formula: **$M = \frac{y_2 - y_1}{x_2 - x_1}$**

$$M = \frac{10-0}{0-7} = \frac{-10}{7}$$

$$M = \frac{-10}{7}$$

3. Use the point-slope formula: **$y - y_1 = m(x - x_1)$ and choose either point e.g (0,10)**

$$y - 10 = \frac{-10}{7}(x - 0)$$

$$y - 10 = \frac{-10}{7}x$$

$$y = \frac{-10}{7}x + 10$$