Slope Formula (Part 1)

Name_____

Maria goes shopping and finds notebooks on clearance. The sale price is 5 for $4.

Step 1: Graph how much Maria must pay for different numbers of notebooks. Then choose lattice points from the graph and enter their coordinates in the tables below.
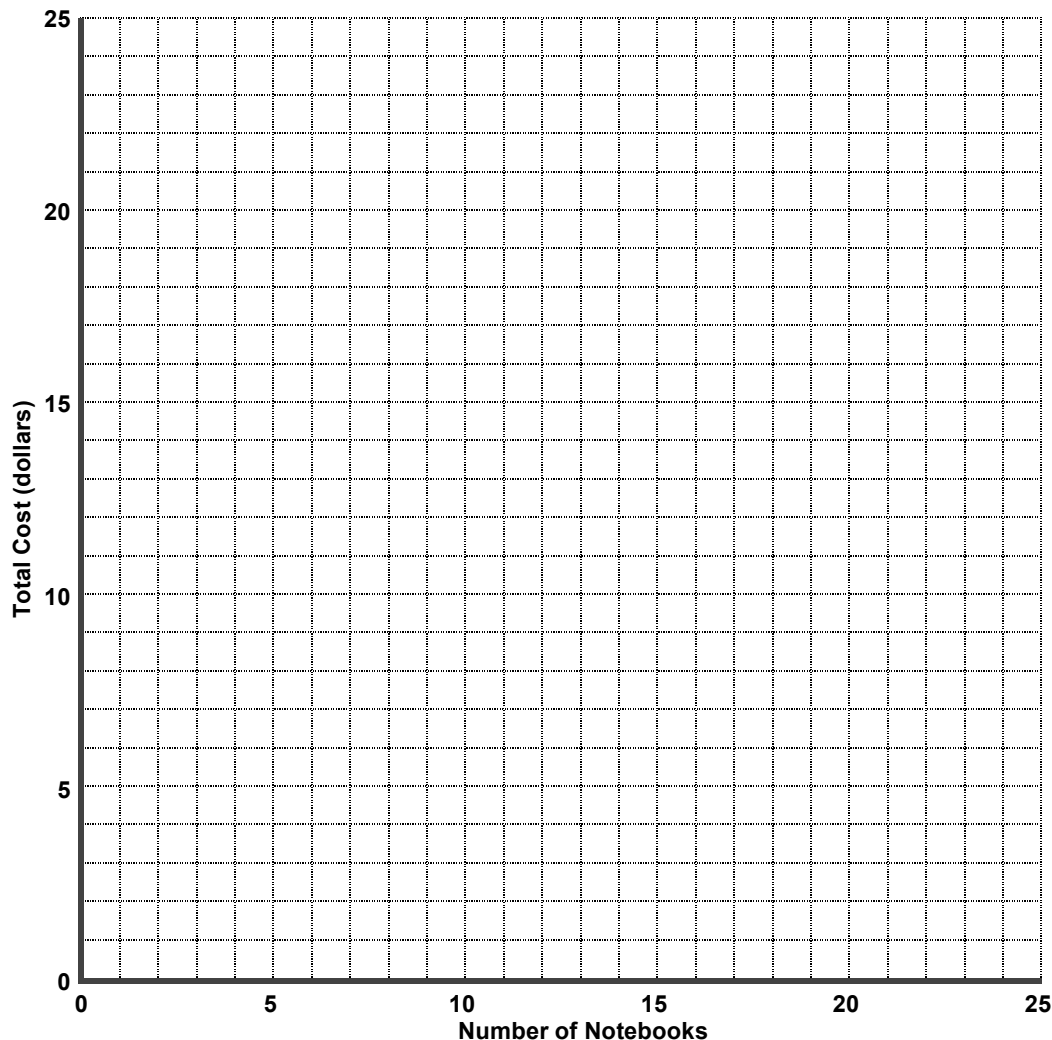
Table 1

x	y

Table 2

x	y

Table 3

x	y

Total Cost (dollars) / _Number of Notebooks_

Step 2: Use the numbers from the tables to complete the slope formula below.

Slope for Table 1 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad]-[\quad]}{[\quad]-[\quad]}$ =

Slope for Table 2 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad]-[\quad]}{[\quad]-[\quad]}$ =

Slope for Table 3 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad]-[\quad]}{[\quad]-[\quad]}$ =

Step 3: What do you notice about the values of the slopes and the price of the notebooks?

Step 4: How many notebooks can Maria buy with $64? Explain your answer.

Slope Formula (Part 2)   Name_____

At the Summer Institute, you get 2 tickets for every 5 days. You start out with 6 tickets.

Step 1: Graph how many total tickets you will have every 5 days. Then choose lattice points from the graph and enter their coordinates in the tables below.
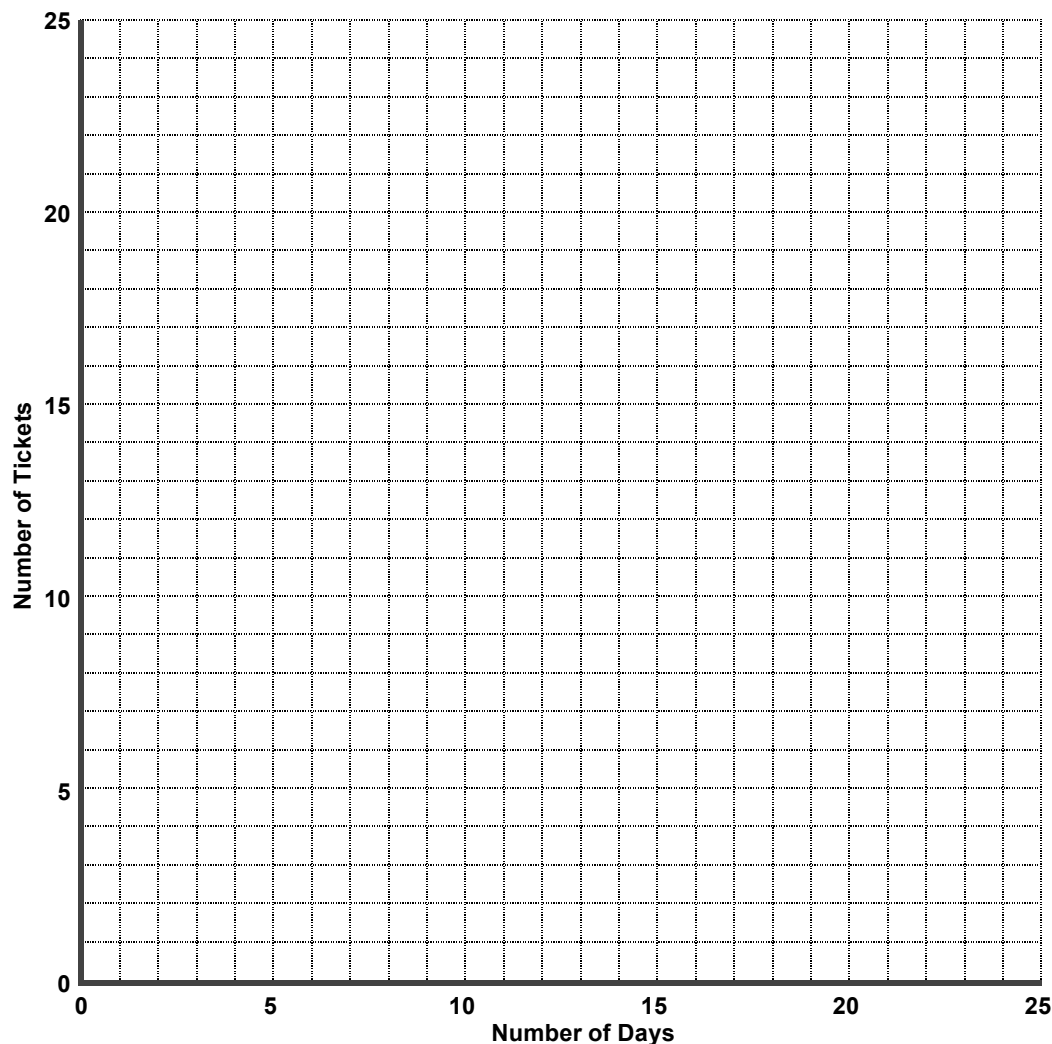
Table 1

x	y

Table 2

x	y

Table 3

x	y

Number of Tickets (y-axis, 0 to 25)
Number of Days (x-axis, 0 to 25)

Step 2: Use the numbers from the tables to complete the slope formula below.

Slope for Table 1 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad] - [\quad]}{[\quad] - [\quad]}$ =

Slope for Table 2 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad] - [\quad]}{[\quad] - [\quad]}$ =

Slope for Table 3 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad] - [\quad]}{[\quad] - [\quad]}$ =

Step 3: What do you notice about the slopes and the number of tickets every 5 days?

Step 4: How many total tickets will you have after 30 days? Explain your answer.

Martha goes on a road trip and starts with 18 gallons of gas. She uses 3 gallons for every 4 hours of driving.

Step 1: Graph how much gas Martha has left in her gas tank after every 4 hours. Then choose lattice points from the graph and enter their coordinates in the tables below.
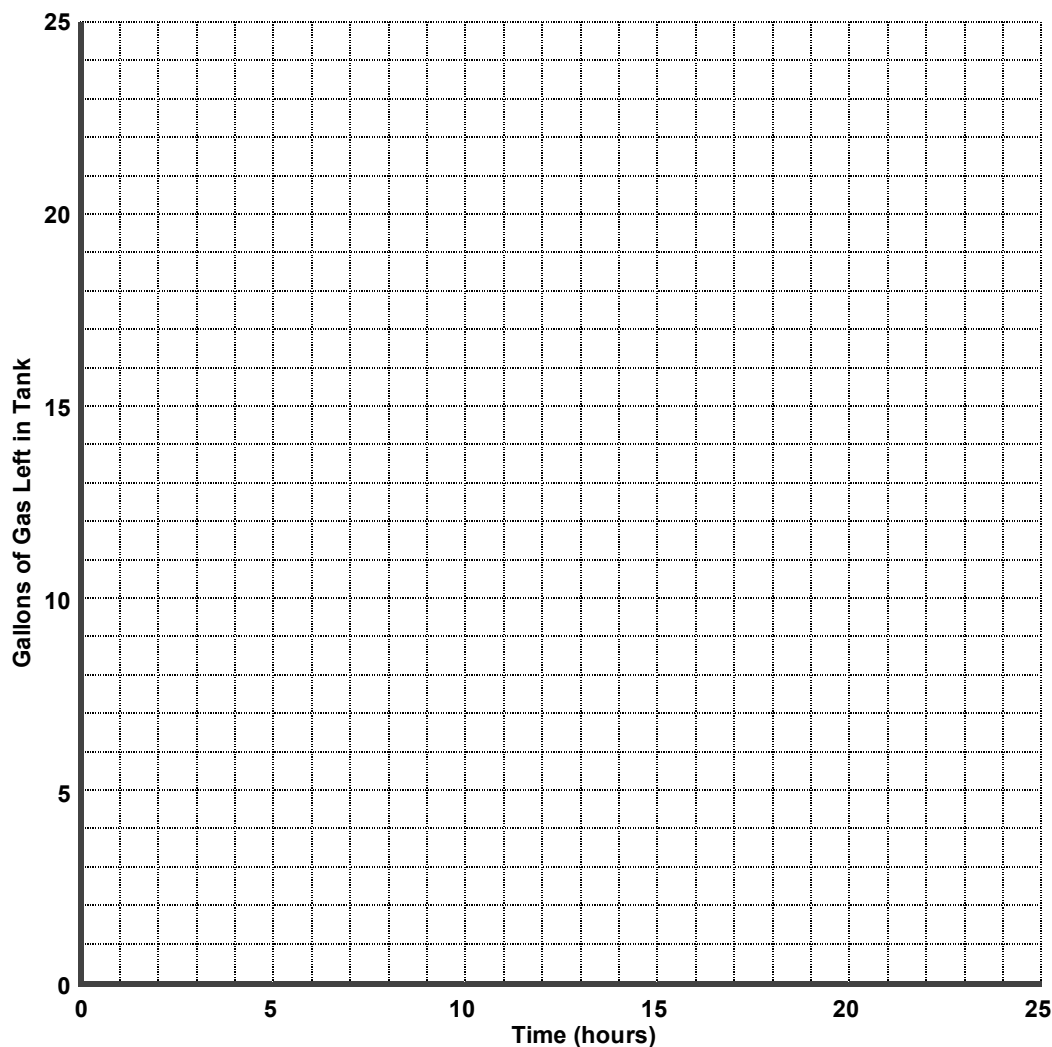
Table 1

x	y

Table 2

x	y

Table 3

x	y

Gallons of Gas Left in Tank (y-axis, 0 to 25)

Time (hours) (x-axis, 0 to 25)

Step 2: Use the numbers from the tables to complete the slope formula below.

Slope for Table 1 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad] - [\quad]}{[\quad] - [\quad]}$ =

Slope for Table 2 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad] - [\quad]}{[\quad] - [\quad]}$ =

Slope for Table 3 = $\dfrac{y_2 - y_1}{x_2 - x_1}$ = $\dfrac{[\quad] - [\quad]}{[\quad] - [\quad]}$ =

Step 3: What do you notice about the slopes and the gallons of gas used every 4 hours?

Step 4: After how many hours will Martha run out of gas? Explain your answer.