

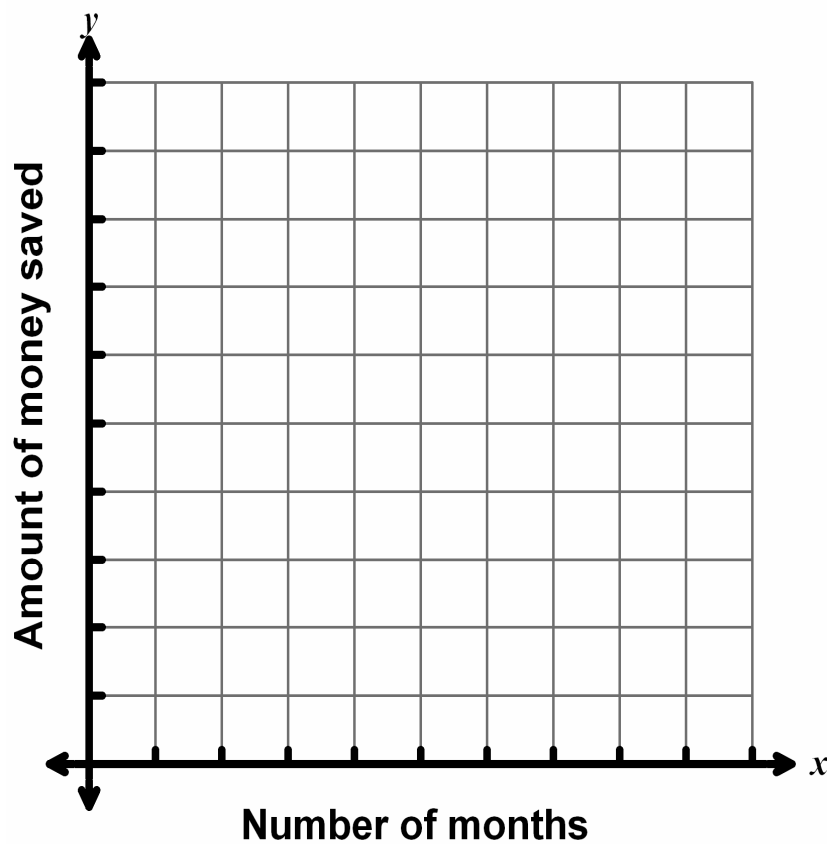
Name: _____ Period: _____ Date: _____

Activity: Planning Ahead

Marcus has decided to start a savings account with the \$45 he earned from dog sitting. He wants to save \$15 each month. Sketch the graph and write the equation for this situation.

Number of months (x)	Amount of money saved (y)
0	45
1	60
2	75
3	90
4	105
5	120

Equation _____



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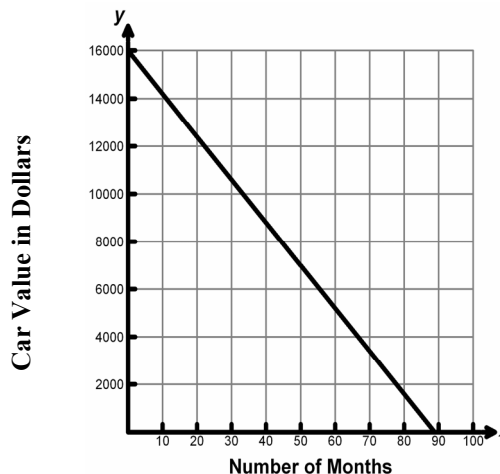
Activity: Tables and Graphs

Problem 1

Table

Number of months (x)	Value of car (y)
1	\$15,815
2	\$15,635
3	\$15,455
4	\$15,275

Graph



Equation

Slope-intercept form

$$y = mx + b$$

$$y = \underline{\hspace{2cm}} x + \underline{\hspace{2cm}}$$

Problem Situation

Stuart bought a car last week. The table shows the depreciation of his car each month. Find an equation Stuart could use to predict the value of his car at x months, if the car depreciates as a constant rate each month.

Independent variable: _____

Dependent variable; _____

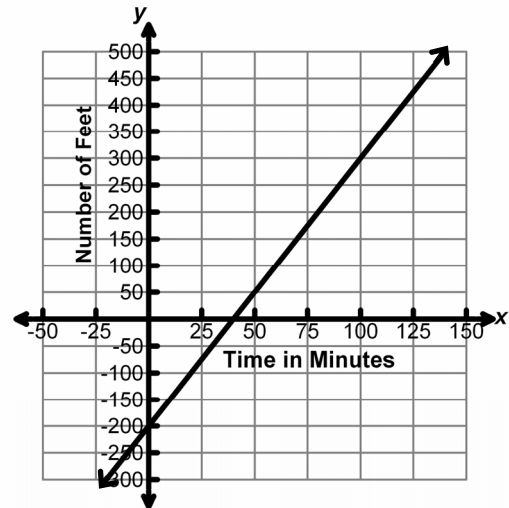
What will be the value of Stuart's car in 2 years?

Problem 2

Table

Minutes (x)	Feet (y)
0	-200
3	-185
6	-170
9	-155
12	-140
15	-125
18	-110

Graph



Equation

Slope-intercept form

$$y = mx + b$$

$$y = \underline{\hspace{2cm}} x + \underline{\hspace{2cm}}$$

Problem Situation

A submarine is 200 feet below sea level. The table shows the data for the submarine as it surfaces.

Independent variable: _____

Dependent variable: _____

How many minutes pass before the submarine reaches the surface of the water?

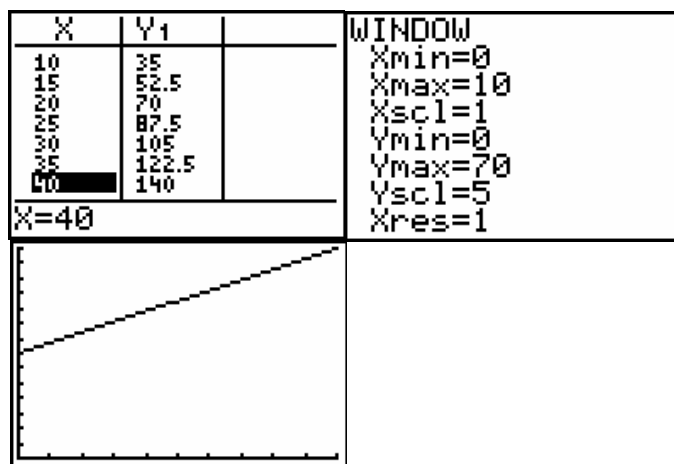
Name: _____ Period: _____ Date: _____

Activity: Car Wash

The marching band held a car wash last weekend. Two students tried to recreate the table in order to write a function rule and create a graph to show the number of cars washed and the amount of money earned. Compare and contrast the 2 student responses and be ready to defend your choice for the correct work.

Number of cars washed	Money earned
10	5.00
15	52.50
20	70.00
25	87.50
30	
35	
40	

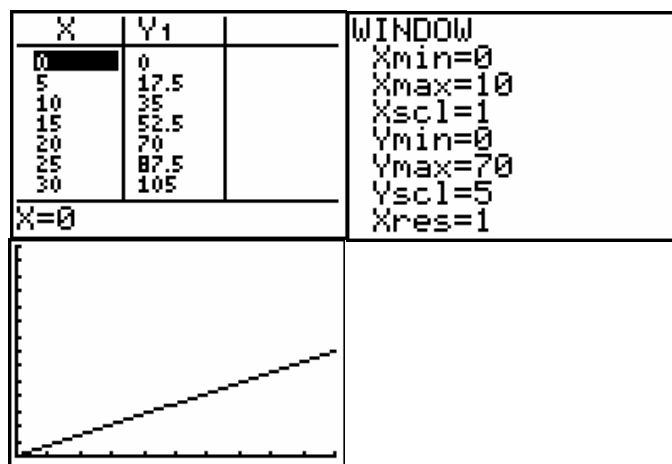
Student 1



Equation

$$y = 3.50x + 35$$

Student 2



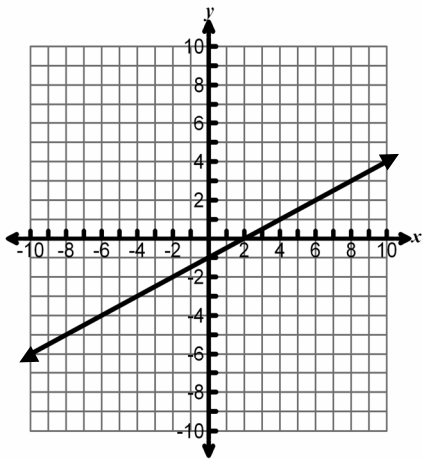
Equation

$$y = 3.50x$$

Name: _____ Period: _____ Date: _____

Evaluate: Understanding Linear Functions

- 1 Which equation describes the relationship shown in the graph below?



- A $x = \frac{1}{2}y - 1$
- B $y = \frac{1}{2}x - 1$
- C $y = 2x + 2$
- D $y = -x + 2$

- 2 Natalie borrowed money from her father to buy a used car. The table shows the loan balance after each payment.

Number of payments (x)	Loan balance (y)
1	\$3310
2	\$3095
3	\$2880
4	\$2665
5	\$2450

Which equation describes this relationship?

- A $y = 3310 + 215x$
- B $y = 3095 - 215x$
- C $y = 3525 - 215x$
- D $y = 2450 + 215x$

- 3 A function is described by the equation $y = x - 3$. If the dependent value for the function is 13, which value below would represent the corresponding independent value?

A 16
B 10
C -4
D -10

- 4 The cheerleading squad needs to add to the \$500 they already have for camp fees. They have decided to sell pom poms at the next home game. The table shows the total funds in the account after the fund-raiser.

Number of Pom Poms Sold (x)	Total Funds in the Account (y)
0	\$500
10	\$535
20	\$570
30	\$605
40	\$640
50	\$675

Which equation can be used to describe this relationship?

- A $y = 10x + 500$
B $y = 35x + 500$
C $y = 3.50x - 500$
D $y = 3.50x + 500$