

Student Government Fundraiser

Student Worksheet:

The student government is selling baskets of fruit to raise money. A small basket costs \$8 and a large basket costs \$12. The students need to sell \$3000 worth of baskets.

1. Write an equation that represents the different amounts of \$8 baskets (x) and \$12 baskets (y) that could be sold to raise the money needed.

Equation: _____

2. Use the equation to complete the table below. Use mathematics to justify each answer.

Fruit Baskets

(x)	(y)
0	
	0

3. Enter the values from the table into the list storage of your calculator.
4. State an appropriate graphing window and then graph the data using that window.
5. What type of relationship exists in the data points? Use mathematics to justify your answer.
6. Write your equation in slope-intercept form. Enter and graph your equation in the calculator. Describe the association between the data points and the graph of the line.
7. What is the y -intercept of the equation and what does it mean in the context of the problem?
8. What is the slope of the equation and what does it mean in the context of the problem?
9. Suppose the student government needed to raise \$3600.
 - Write an equation that describes the number of each type of basket that could be sold to raise the money needed.
 - Find three possible combinations of baskets that could be sold to raise \$3600. Use mathematics to justify your answer.

Student Government Fundraiser Answer Key

1. Equation: $8x + 12y = 3000$
2. The students must give $(0, 250)$ and $(375, 0)$ and three other correct sets of data points. All sets of data points must be justified. Example justification: $8(0) + 12(250) = 3000$
5. The data points are linear because there is a constant rate of change.
6. The graph of the line goes through the data points.
7. The y -intercept is $(0, 250)$. This means that the student government could sell two hundred fifty \$12 baskets and no \$8 baskets to raise the money needed.
8. The slope of the equation is $-2/3$. This means that as the number of \$12 baskets decreases by 2 the number of \$8 baskets increases by 3.
9. $8x + 12y = 3600$

The combinations that the students give will vary. All answers must be justified.