Possible Solutions

The cost of bananas per pound is represented in the table below.

Pounds of Bananas	Cost ($)
2	2.50
3	3.75
5	6.25
7	8.75

Write an equation that represents the cost of buying *x* amount of bananas.

Possible Solution 1

- In a proportional relationship problem, *k* is the unit rate. In this problem, the amount paid for one pound of bananas is the unit rate. This number can be determined by finding $\frac{y}{x}$, such as $\frac{2.50}{2}$ or $\frac{3.75}{3}$, etc.
- The unit rate is $1.25 per pound and represents the *k* in the equation *y = kx*.
- The solution is *y = 1.25x*.

Possible Solution 2

- You can use the table to determine the slope of the line represented in the table. This value is *k* in the equation *y = kx*.

$$\frac{change\ in\ y}{change\ in\ x} = \frac{\Delta y}{\Delta x} = \frac{1.25}{1} = \frac{2.50}{2}$$

- Since all the ratios simplify to 1.25 and the cost of 0 bananas is $0, the 1.25 is the k in the equation.
- The cost of bananas per pound is represented in the table below.

Pounds of Bananas	Cost ($)

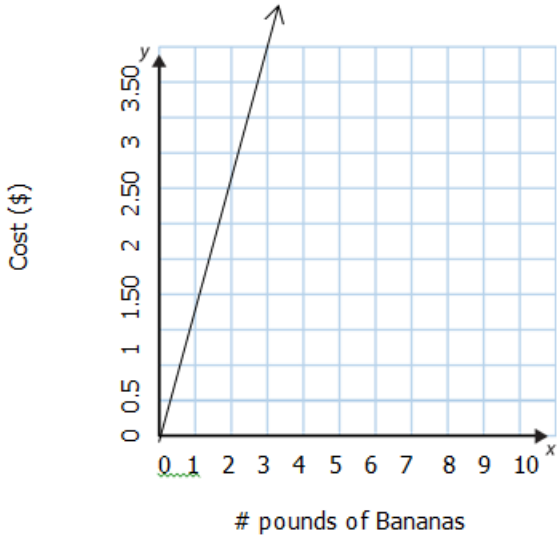
+1	2	2.50	+1.25
+2	3	3.75	+2. 50
+2	5	6.25	+2. 50
	7	8.75	

$$\frac{1.25}{1} = \frac{2.50}{2} = 1.25$$

- Write an equation that represents the cost of buying *x* amount of bananas. $y = 1.25x$.

Possible Solution 3

- Graph the points on the table and determine the rate of change and *y*-intercept of the graph to help write the equation for the data.
- The graph starts at (0, 0) and has a rate of change of $1.25 per pound.



- The solution is $y = 1.25x$.