

Making and Selling Candles

A student wants to earn some money by making and selling candles.

Suppose that he can make 60 candles from a \$50 kit, and that these will each be sold for \$4.



The cost of buying the kit: (This includes the molds, wax and wicks.)	\$	k	
The number of candles that can be made with the kit:		n	candles
The price at which he sells each candle:	\$	s	per candle
Total profit made if all candles are sold:	\$	p	

- Write the values for k , n , and s into the table above.
- How can you calculate the profit p using the given values of k , n , and s ?

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Would your method change if the values of k , n , and s were different? Explain your answer.

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- Now that you know the profit, erase the selling price of each candle, s . The values of k , n , and p are in the table. Suppose you didn't know s . How could you figure it out?

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Would your method change if the value of each variable were different? Explain your answer.

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4. Now **erase two** numbers: n and p .

The cost of buying the kit: (This includes the molds, wax and wicks.)	\$	k [Green box]	
The number of candles that can be made with the kit:		n [Green box]	candles
The price at which he sells each candle:	\$	s [Green box]	per candle
Total profit made if all candles are sold:	\$	p [Green box]	

What could these numbers be?

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Construct a table of possible values.
Plot a graph to show the relationship.

5. Write down four general formulas showing the relationships between the variables.

$p =$

$s =$

$n =$

$k =$