

**Directions:** Answer each part of the problem by a) writing an **equation** that represents the relationship, b) identifying the **independent variable** and **dependent variable** and completing a **table**, c) graphing the data from the table on a **coordinate plane**.

**Complete the table. Then use the table to answer the questions.**

*Example*

Sophia made  $p$  necklaces for a charity sale. Nicole made 3 more necklaces than Sophia.

a) If Nicole made  $q$  necklaces, write an equation relating  $p$  and  $q$ .

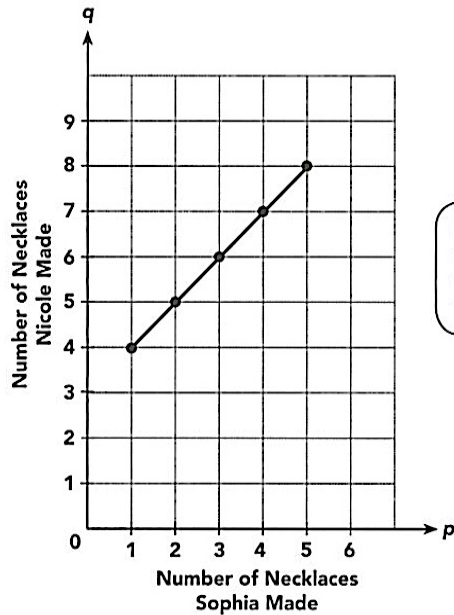
$q = p + 3$

b) Complete the table to represent the linear equation.

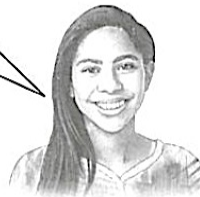
Number of Necklaces Sophia Made ( $p$ )	1	2	3	4	5
Number of Necklaces Nicole Made ( $q$ )	4	5	6	7	8

c) Use the data from **b)** to plot the points on a coordinate plane. Connect the points with a line.

Number of Necklaces Made



Use the horizontal axis for the independent variable and the vertical axis for the dependent variable.



A square has a side length of  $k$  inches.

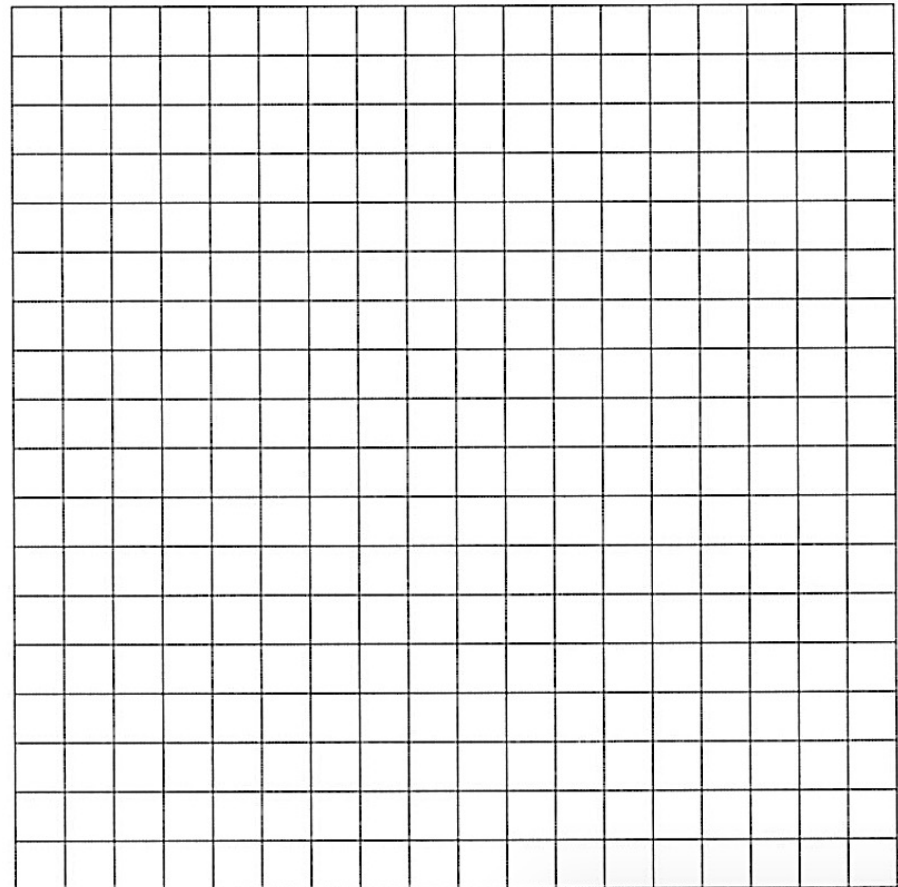
a) If the perimeter of the square is  $q$  inches, write an equation relating  $q$  and  $k$ .

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b) Complete the table to represent the linear equation.

Side Length of the Square ( $k$ inches)	1	2	3	4	5
Perimeter of the Square ( $q$ inches)					

c) Use the data from **b)** to plot the points on a coordinate plane. Connect the points with a line.



Mandy spends  $a$  dollars during lunchtime. Jason spends \$4 more than Mandy.

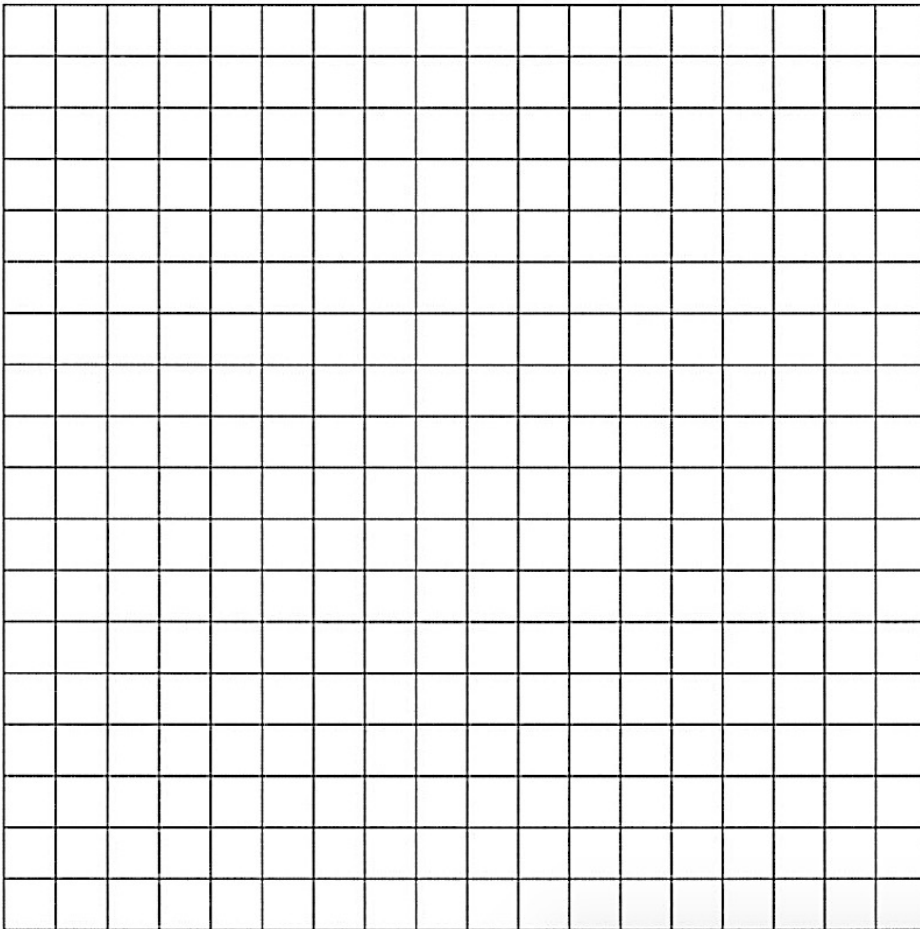
- a) If Jason spends  $b$  dollars, write an equation relating  $a$  and  $b$ .

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- b) Complete the table to represent the linear equation.

<b>Amount of Money Mandy Spends (<math>a</math> dollars)</b>	1	2	3	4	5
<b>Amount of Money Jason Spends (<math>b</math> dollars)</b>	5				

- c) Use the data from **b)** to plot the points on a coordinate plane. Connect the points with a line.



Lynette's mother gives her \$80. Lynette spends \$5 per day. Lynette has  $y$  dollars left after  $x$  days.

- a) Write an equation relating  $y$  and  $x$ .

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- b) Complete the table to show the relationship between  $x$  and  $y$ .

<b>Number of Days (<math>x</math>)</b>	1	2	3	4	5	6
<b>Amount of Money Left (<math>y</math> dollars)</b>						

- c) Graph the relationship between  $x$  and  $y$  on a coordinate plane.

