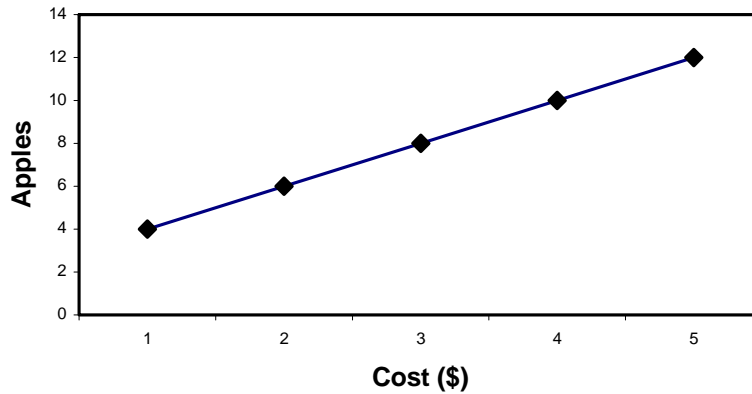# Interpreting Graphical Relationships Answer Key

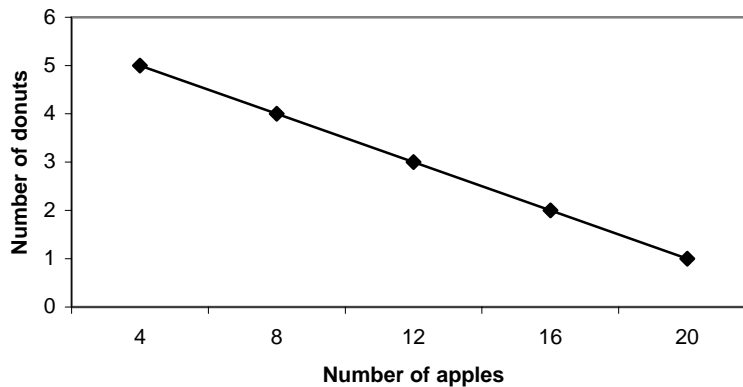**1.** Linear Direct Relationships ($y = mx + b$)



Equation: $y = 2x + 2$

Use $m = \dfrac{y_2 - y_1}{x_2 - x_1}$ to find the slope of the line.

Then substitute the calculated value for $m$ and the $x$ and $y$ values for any point on the line into the equation $y = mx + b$ to solve for $b$.
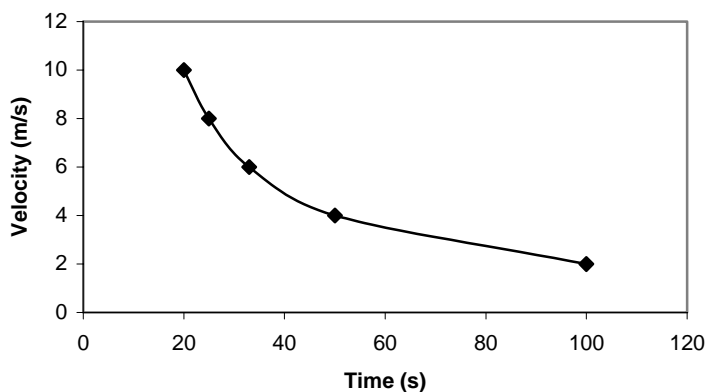
**2.** Linear Indirect Relationships ($y = -mx + b$)



Equation: $y = \dfrac{1}{4}x + 6$

Use the same strategy as in Question #1.

**3.** Inverse Relationship ( $y = k \cdot \dfrac{1}{x}$ or $y = \dfrac{k}{x}$ )



Equation:

$y = 200 \cdot \dfrac{1}{x}$ or $y = \dfrac{200}{x}$

Substitute the $x$ and $y$ values for any point on the line into the equation

$y = \dfrac{k}{x}$ to solve for $k$.