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## Independent and Dependent Variables <br> Writing Equations

Example: A sailboat travels at an average speed of 17 miles per hour. The total distance, $d$, in miles that the sailboat travels is equal to the rate times the number of hours, $h$.

The distance depends on the number of hours sailing.
Dependent variable: distance (d)
Independent variable: number of hours ( $h$ )
Equation: $d=17 h$


Independent variable: $\qquad$

Equation: $\qquad$
2. Corey burns 8 calories, $c$, for every minute, $m$, she runs on the treadmill. Write an equation to represent how many calories she could burn.

Dependent variable: $\qquad$

Independent variable: $\qquad$

Equation: $\qquad$

## Independent and Dependent Variables <br> Writing Equations

3. Jordan is going kayaking. It costs him $\$ 10.00$ per hour, $h$, and $\$ 4.50$ to rent the kayak. Write an equation to represent Jordan's total cost, $t$, for kayaking.

Dependent variable: $\qquad$

Independent variable: $\qquad$

Equation: $\qquad$


Independent variable: $\qquad$

Equation: $\qquad$
5. Kyshell wants to buy some new clothes for school. Shirts, s, cost $\$ 9.75$ each and pants, p, cost $\$ 12.50$ each. Write an equation to represent the total cost, $t$, of Kyshell's clothes.

Dependent variable: $\qquad$

Independent variables: $\qquad$

Equation: $\qquad$

## ANSWER KEY

## Independent and Dependent Variables

Writing Equations

1. Lucia is taking her family out for ice cream. Each ice cream cone, $c$, costs $\$ 2.50$. Write an equation to represent her total cost, $t$.

Dependent variable: __ total cost ( $t$ )
Independent variable:
number of ice cream cones (c)

# Preview 

Please log in to download the printable version of this worksheet.

Dependent variable: $\qquad$ total cost ( $t$ )

Independent variable:
Equation: $\qquad$ number of shirts $(s)$ and pants ( $p$ ) $t=9.75 s+12.50 p$

