

Name: \_\_\_\_\_

# Independent and Dependent Variables

Determine the dependent and independent variables in each scenario.

1. The McClains paid a \$25 moving van rental fee, \$74 in gas, and \$0.70 per mile driven.

**Dependent variable (x):** \_\_\_\_\_

**Independent variable (y):** \_\_\_\_\_

**Equation:** \_\_\_\_\_

2. Mrs. Mata is emptying her 7,800-gallon pool. The pump she is using can drain 60 gallons per minute.

**Dependent variable (x):** \_\_\_\_\_

**Independent variable (y):** \_\_\_\_\_



**Dependent variable (x):** \_\_\_\_\_

**Independent variable (y):** \_\_\_\_\_

**Equation:** \_\_\_\_\_

5. A car-washing fundraiser charges \$10 for every car. Setup and snacks for volunteers cost \$118.

**Dependent variable (x):** \_\_\_\_\_

**Independent variable (y):** \_\_\_\_\_

**Equation:** \_\_\_\_\_

6. Maximiliano charges \$75 to draw someone, plus \$35 for each extra person in the picture.

**Dependent variable (x):** \_\_\_\_\_

**Independent variable (y):** \_\_\_\_\_

**Equation:** \_\_\_\_\_

# ANSWER KEY

## Independent and Dependent Variables

Determine the dependent and independent variables in each scenario.

1. The McClains paid a \$25 moving van rental fee, \$74 in gas, and \$0.70 per mile driven.

Dependent variable (x): total cost

Independent variable (y): number of miles driven

Equation:  $y = 25 + 74 + .70x$  or  $y = 99 + .70x$



Dependent variable (x): total price of the picture

Independent variable (y): number of extra people in the picture

Equation:  $y = 75 + 35x$