Independent and Dependent Variables

The independent variable determines the value of the dependent variable. In other words, the dependent variable “depends on” the independent variable.

Example: Linda burns 3.2 calories for every minute she spends walking her dog.

The number of calories Linda burns depends on the number of minutes she walks.

Directions: Determine the dependent and independent variables for each of the following scenarios.

1. Keira earns $11.50 for each hour she babysits.

   The amount of ____________________________________________________________ depends on how many ____________________________________________________________.

   Dependent variable: ______________________________________________________

   Independent variable: _____________________________________________________

2. Omar earns 2 points for each basket he makes during his basketball game.

   Dependent variable: ______________________________________________________

   Independent variable: _____________________________________________________
3. Mia is tie-dyeing t-shirts for her upcoming soccer game. She knows that the more dye she uses, the more intense the color on her shirt will be.

Dependent variable: _________________________________________________

Independent variable: ______________________________________________

4. Each box of Marco’s favorite cookies costs $4.00.

Dependent variable: _________________________________________________

Independent variable: ______________________________________________

5. 150 gallons of water can pump through a fire hose each minute.

Dependent variable: _________________________________________________

Independent variable: ______________________________________________

6. Each load of laundry costs 6 quarters at the laundromat.

Dependent variable: _________________________________________________

Independent variable: ______________________________________________
1. Keira earns $11.50 for each hour she babysits.

   The amount of __________________________________________ depends on
   how many __________________________________________.

   Dependent variable: ______________________________________
   Independent variable: _____________________________________

2. Omar earns 2 points for each basket he makes during his basketball game.

   Dependent variable: ______________________________________
   Independent variable: _____________________________________

3. Mia is tie-dyeing t-shirts for her upcoming soccer game. She knows that the more dye she uses, the more intense the color on her shirt will be.

   Dependent variable: ______________________________________
   Independent variable: _____________________________________

4. Each box of Marco's favorite cookies costs $4.00.

   Dependent variable: ______________________________________
   Independent variable: _____________________________________

5. 150 gallons of water can pump through a fire hose each minute.

   Dependent variable: ______________________________________
   Independent variable: _____________________________________

6. Each load of laundry costs 6 quarters at the laundromat.

   Dependent variable: ______________________________________
   Independent variable: _____________________________________

ANSWER KEY

Independent and Dependent Variables

1. Keira earns $11.50 for each hour she babysits.

   The amount of ______________________ money Keira makes _____________ depends on
   how many ______________________ hours she babysits ________________.

   Dependent variable: ______________________________
   Independent variable: _____________________________

2. Omar earns 2 points for each basket he makes during his basketball game.

   Dependent variable: ______________________________
   Independent variable: _____________________________

3. Mia is tie-dyeing t-shirts for her upcoming soccer game. She knows that the more dye she uses, the more intense the color on her shirt will be.

   Dependent variable: ______________________________
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   Dependent variable: ______________________________
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5. 150 gallons of water can pump through a fire hose each minute.

   Dependent variable: ______________________________
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6. Each load of laundry costs 6 quarters at the laundromat.

   Dependent variable: ______________________________
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