

Worksheet: Dependent and Independent Variables



Q1: Identify the dependent variable in the following situation: Ethan spent d dollars on n pens.

- A the number of dollars, d
- B the number of pens, n



Question Video

Q2: Identify the independent variable in the following situation: A garden hose runs for h hours and produces g gallons of water.

- A the number of hours, h
- B the gallons of water, g



Question Video

Q3: Consider these related quantities: a call duration and its cost.

► Which quantity is the independent variable?

- A Neither
- B The call duration
- C The call cost

► Which quantity is the dependent variable?

A Neither

B The call cost

C The call duration

Q4: Consider these related quantities: The area of a wall to be painted and the amount of paint needed to paint that area.

► Which quantity is the dependent variable?

A Neither

B The quantity of paint needed

C The area of the wall to be painted

► Which quantity is the independent variable?

A Neither

B The area of the wall to be painted

C The quantity of paint needed

Q5: Daniel and Matthew want to investigate how the outside temperature changes during a day. Daniel says that time is the dependent variable because it is measured. Matthew says that time is the independent variable because they can choose at which time they are going to measure the outside temperature. Who is correct?

A Matthew

B Daniel

Q6: James wants to investigate the relationship between the temperature of the oven and the time it takes to cook *one* kilogram of potatoes.

► What is the dependent variable?

A The oven temperature

B None

C The mass of the potatoes

D The cooking time

► What is the independent variable?

A The cooking time

B None

C The mass of the potatoes

D The oven temperature