

Lesson 9-1

Reinforce Understanding

Explore Relationships Between Two Variables

I can recognize when two quantities change together, and identify which one is the independent variable and which is the dependent variable.

Worked model

Jaden walks dogs after school. The more hours he walks, the more money he earns. Which variable is independent, and which is dependent?

1. Name the two quantities: hours walked and money earned.
2. Which is chosen? Jaden picks his hours — hours walked is the independent variable.
3. Which responds? The money changes because the hours change — money earned is dependent.
4. Sentence check: 'Money earned depends on hours walked.' The sentence makes sense.

Answer: Independent variable: hours walked. Dependent variable: money earned.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Akela chooses how many hours of sunlight each tray gets. Which is the INDEPENDENT variable?

Circle the letter of the best answer. Show how you know.

- A. Plant height
- B. Hours of sunlight
- C. Number of trays
- D. Number of seeds

Show your work

2. In Akela's experiment, which is the DEPENDENT variable?

Circle the letter of the best answer. Show how you know.

- A. Hours of sunlight
- B. The kind of seed
- C. The size of the tray
- D. Plant height

Show your work

3. Claire burned 123 Calories on a 30-minute jog. Which quantity is subject to choice?

Circle the letter of the best answer. Show how you know.

- A. Calories she burns
- B. Her heart rate
- C. Minutes she jogs
- D. The weather

Show your work
