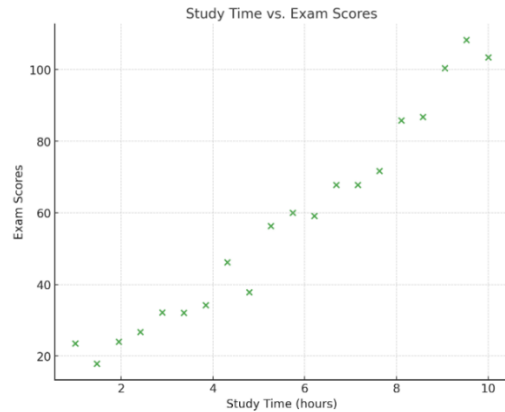


Scatter Plots and Causation

Name _____ Period: _____ Date: _____

Directions: Use the information given to solve each problem.

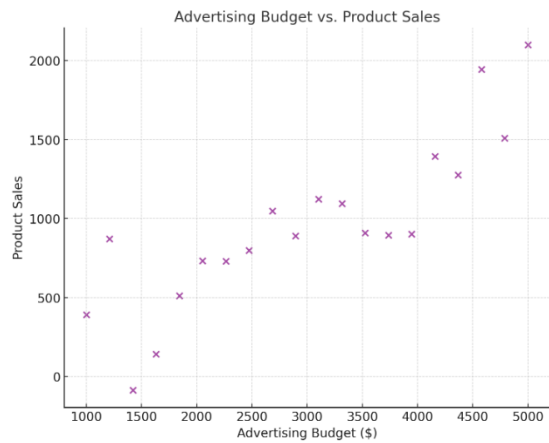
1. A teacher is monitoring the amount of time each student studied and their score on the exam.
The data is shown on the diagram below.



Which statement is correct based on the data?

- A. The amount of hours a student studied gives no indication of what the student will score on the exam.
- B. If the student studied 6 hours, he would definitely score an 80 on the exam.
- C. The more hours a student studied is correlated to a higher exam score and studying causes higher exam scores.
- D. The more hours a student studied is correlated to a higher exam score but studying may not be the cause of the higher exam scores.

2. A marketing team analyzes the amount of money spend on their Advertising Budget and the number of products sold. The data is shown on the diagram below.



Which statements are correct based on the data? Circle **all** the true statements.

- A. The amount of money spent on the Advertising Budget gives no indication of how many products will be sold.
- B. If amount of money spent on the Advertising Budget is \$2000, the team is expected to sell about 500 products.
- C. The more money spent on the Advertising Budget is corelated to a higher number of products sold and spending more money on advertising causes more products to be sold.
- D. The more money spent on the Advertising Budget is corelated to a higher number of products sold but spending more money on advertising does not necessarily causes more products to be sold.

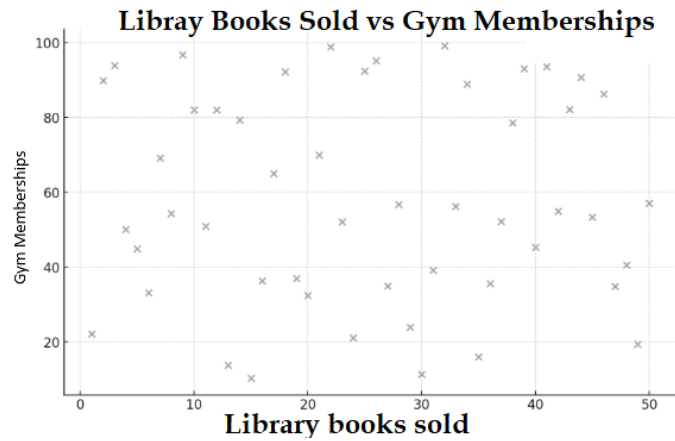
3. A company analyzes the number of years of experience an employee has and their salary in dollars. The data is shown on the diagram below.



Which statements are correct based on the data? Circle **all** the true statements.

- A. The number of years of experience gives no indication of an employee's salary.
- B. If the number of years of experience is 10, the employee is expected to have a salary of exactly \$20,000.
- C. More years of experience is correlated to a higher salary and having more experience causes an employee to have a higher salary.
- D. More years of experience is correlated to a higher salary and but having more experience does not be causing the employee to have a higher salary.

4. A company analyzes the number of Library books sold and number of people who open Gym Memberships. The data is shown on the diagram below.



Which statements are correct based on the data? Circle **all** the true statements.

- A. The number of Library Books sold gives no indication of the number of people who will open Gym Memberships.
- B. If the number of Library Books sold is 30, the number of people who will open Gym Memberships is expected to be around 100.
- C. The more Library Books sold is corelated to the number of people who open Gym Memberships, and selling Library Books causes people to open Gym Memberships.
- D. The more Library Books sold is corelated to the number of people who open Gym Memberships, but selling Library Books does not cause people to open Gym Memberships.

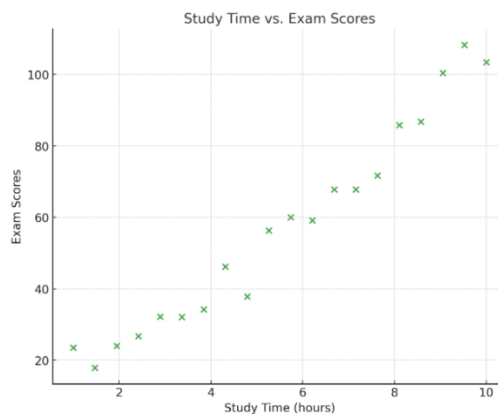
Scatter Plots and Causation

Name _____ Period: _____ Date: _____

Answer Key

Directions: Use the information given to solve each problem.

1. A teacher is monitoring the amount of time each student studied and their score on the exam.
The data is shown on the diagram below.

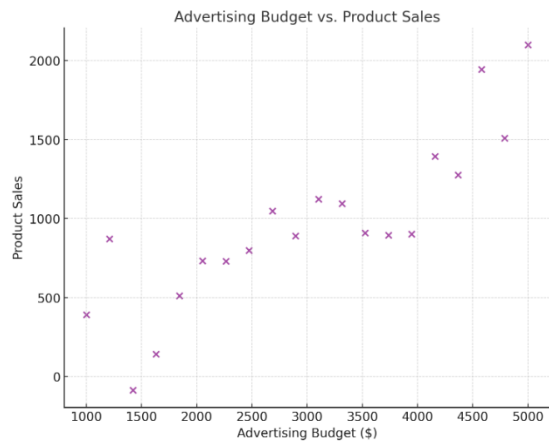


Which statement is correct based on the data?

- A. The amount of hours a student studied gives no indication of what the student will score on the exam.
- B. If the student studied 6 hours, he would definitely score an 80 on the exam.
- C. The more hours a student studied is correlated to a higher exam score and studying causes higher exam scores.
- D. The more hours a student studied is correlated to a higher exam score but studying may not be the cause of the higher exam scores.

D

2. A marketing team analyzes the amount of money spend on their Advertising Budget and the number of products sold. The data is shown on the diagram below.



Which statements are correct based on the data? Circle **all** the true statements.

- A. The amount of money spent on the Advertising Budget gives no indication of how many products will be sold.
- B. If amount of money spent on the Advertising Budget is \$2000, the team is expected to sell about 500 products.
- C. The more money spent on the Advertising Budget is corelated to a higher number of products sold and spending more money on advertising causes more products to be sold.
- D. The more money spent on the Advertising Budget is corelated to a higher number of products sold but spending more money on advertising does not necessarily causes more products to be sold.

B and D

3. A company analyzes the number of years of experience an employee has and their salary in dollars. The data is shown on the diagram below.

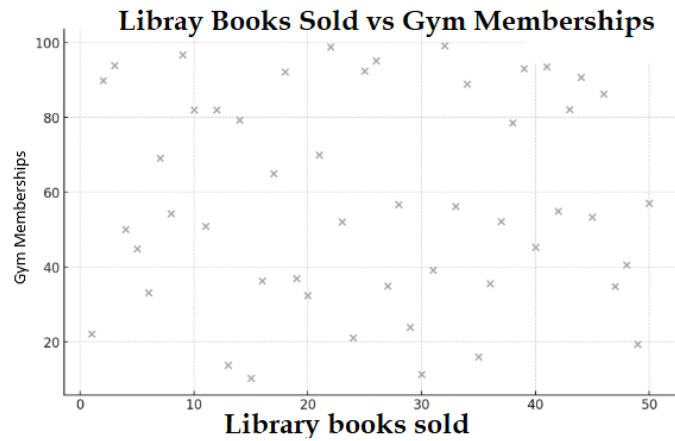


Which statements are correct based on the data? Circle **all** the true statements.

- A. The number of years of experience gives no indication of an employee's salary.
- B. If the number of years of experience is 10, the employee is expected to have a salary of exactly \$20,000.
- C. More years of experience is correlated to a higher salary and having more experience causes an employee to have a higher salary.
- D. More years of experience is correlated to a higher salary and but having more experience does not be causing the employee to have a higher salary.

D

4. A company analyzes the number of Library books sold and number of people who open Gym Memberships. The data is shown on the diagram below.



Which statements are correct based on the data? Circle **all** the true statements.

- A. The number of Library Books sold gives no indication of the number of people who will open Gym Memberships.
- B. If the number of Library Books sold is 30, the number of people who will open Gym Memberships is expected to be around 100.
- C. The more Library Books sold is corelated to the number of people who open Gym Memberships, and selling Library Books causes people to open Gym Memberships.
- D. The more Library Books sold is corelated to the number of people who open Gym Memberships, but selling Library Books does not cause people to open Gym Memberships.

A