2 COACHED EXAMPLE

Answer Key

Enter the data into a graphing calculator. For L1, enter the following:

2, 4, 6, 8, 10

For L2, enter the following:

29, 41, 50, 63, 77

$y = 5.9x + 16.6$

$r = 0.997$

If $x = 16$, then $y = 111$.

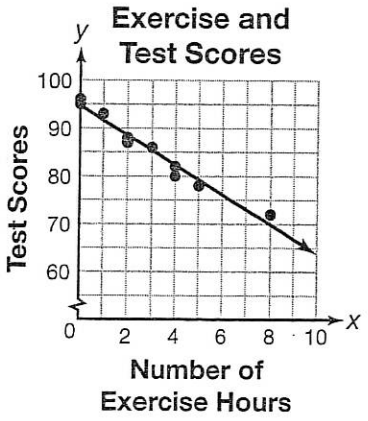
3 LESSON PRACTICE

29

Answer Key

1. B
2. D
3. B
4. C
5. C
6. Part A $y = -3.1x + 94.7$

   Part B



   Part C 76

   Part D The relationship of the data is an example of correlation. It's possible that by exercising more, students study less, but no causation is shown.

7.

Relationship	Correlation	Causation
The number of windows in a building and the number of doors in the building	●	○
The number of times a nail has been hit with a hammer and the length of the portion of the nail inside the board	○	●
The number of pairs of ice skates sold and the number of snow shovels sold	●	○
The weight of a package and the cost to ship it to a specific address	○	●

8. **Strong Negative Correlation:** −0.93, −0.95
   Weak Negative Correlation: −0.46
   Weak Positive Correlation: 0.37
   Strong Positive Correlation: 0.92, 0.89

9. Part A $y = 0.80x - 26.24$

   Part B $r = 0.99$

   Part C $y = -0.55x + 45.45$

   Part D $r = -0.99$

   Part E Sample answer: There should be a strong negative correlation between the number of ice cream cones sold and the number of hot chocolates sold. Since the number of ice cream cones sold increases as temperature increases with a strong correlation and since the number of hot chocolates sold decreases as temperature increases with strong correlation, the number of hot chocolates sold should decrease as the number of ice cream cones sold increases. This relationship is correlation because sales of both are affected by the temperature but not by each other's sales.

UNIT 3