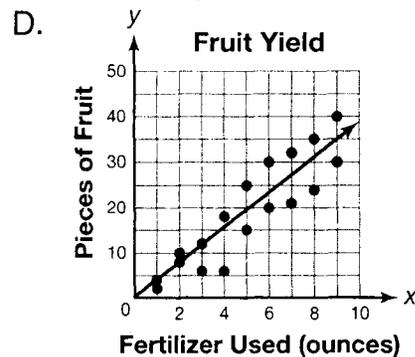
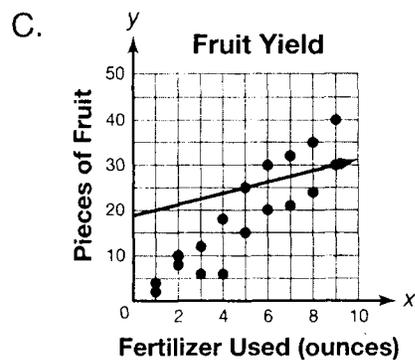
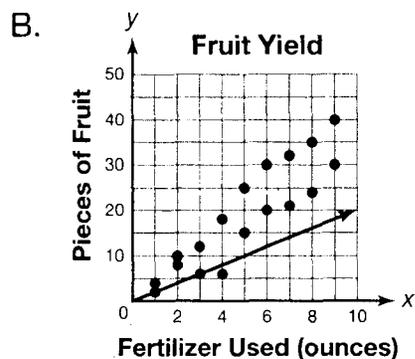
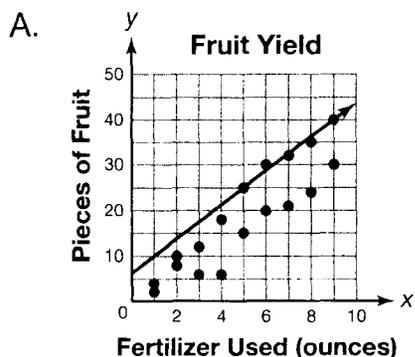


# CHAPTER 5 REVIEW

1. Which scatter plot shows a line of best fit for the data?



2. In a survey of 120 students,  $\frac{5}{8}$  of the students who responded were boys and the rest were girls. Of those surveyed, 28 girls said they support a proposal to change the school mascot, while 12 boys said they did not support the proposal. Which table represents the data?

A.

	Boys	Girls	Total
Yes	63	28	91
No	12	17	29
Total	75	45	120

B.

	Boys	Girls	Total
Yes	28	63	91
No	17	12	29
Total	45	75	120

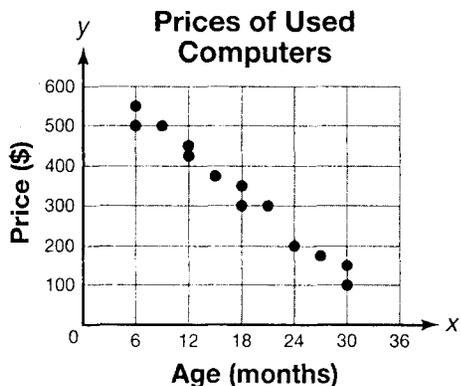
C.

	Boys	Girls	Total
Yes	47	28	75
No	12	33	45
Total	59	61	120

D.

	Boys	Girls	Total
Yes	17	12	29
No	28	63	91
Total	45	75	120

3. Which **best** describes the correlation between the age of a used computer and its price?



- A. weak, positive, and linear  
 B. weak, negative, and linear  
 C. strong, positive, and linear  
 D. strong, negative, and linear
4. The table below shows the numbers of students in two eighth-grade classes who get school lunch or bring a bag lunch from home on most days.

	School Lunch	Bag Lunch
Class 8A	18	15
Class 8B	20	12

Approximately what percent of the students get school lunch on most days?

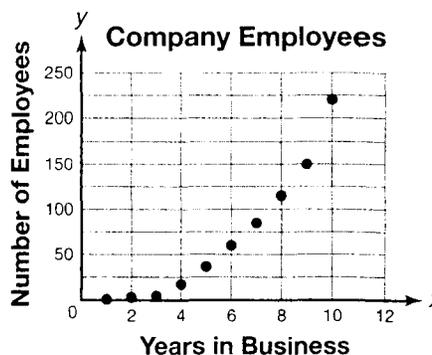
- A. 55%                      B. 58%  
 C. 71%                      D. 90%

5. The table below shows the numbers of students who chose either Spanish or French for their world language class.

	Grade 6	Grade 7	Grade 8
Spanish	95	65	79
French	30	64	45

What is the relative frequency that an eighth grader chose Spanish?

- A. 12%                      B. 32%  
 C. 36%                      D. 57%
6. The scatter plot below shows the change in the number of employees over 10 years.

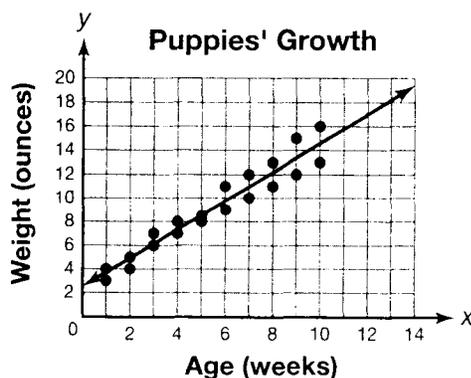


Which statement is true?

- A. There is an outlier at (10, 220).  
 B. The scatter plot shows no association.  
 C. The scatter plot shows a negative association.  
 D. The scatter plot shows a nonlinear association.

Use the information and graph below for questions 7–10.

A dog breeder recorded the weights of two Chihuahua puppies during their first few weeks. The scatter plot shows the data. The equation for the line of best fit is  $y = 1.2x + 2.5$ .



7. What does the y-intercept of the line show?
- A. the number of ounces a puppy weighs at birth
  - B. the number of ounces a puppy gains each week
  - C. the number of weeks it takes a puppy to gain 1.2 ounces
  - D. the number of weeks it takes a puppy to gain 2.5 ounces
8. What does the slope of the line of best fit show?
- A. With each week that passes, a puppy's weight decreases by about 1.2 ounces.
  - B. With each week that passes, a puppy's weight increases by about 1.2 ounces.
  - C. With each week that passes, a puppy's weight decreases by about 2.5 ounces.
  - D. With each week that passes, a puppy's weight increases by about 2.5 ounces.

9. Using the line of best fit, about how much would you expect a puppy to weigh at 13 weeks?

- A. 16.5 ounces
- B. 17 ounces
- C. 18.1 ounces
- D. 19 ounces

10. Using the line of best fit, about how much would you expect a puppy to weigh at 18 weeks?

- A. 17 ounces
- B. 20 ounces
- C. 22 ounces
- D. 24 ounces

Use the information and table below for questions 11 and 12.

Marlo asked 150 teenagers if they do chores and if they get an allowance. Her results are shown in the table.

	Allowance	No Allowance
Chores	72	18
No Chores	14	47

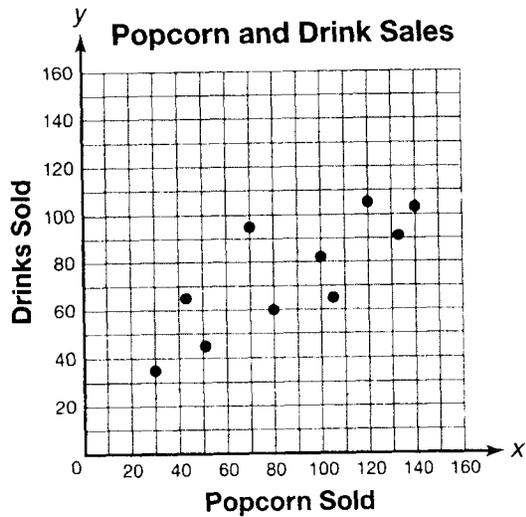
11. What is the relative frequency that a teenager who does **not** do chores gets an allowance?

- A. 9%
- B. 17%
- C. 23%
- D. 30%

12. Which conclusion is supported by the two-way frequency table?

- A. Teenagers who do chores also tend to get an allowance.
- B. Teenagers who do chores do not tend to get an allowance.
- C. Teenagers who do not do chores tend to get an allowance anyway.
- D. There appears to be no association between doing chores and getting an allowance.

13. Which statement describes the data represented by the scatter plot below?



- A. There is a weak, negative association.
- B. There is a weak, positive association.
- C. There is a strong, positive association.
- D. There is no association.

14. Raj surveyed some adults and teenagers to find out if they exercise regularly. His data is shown in the table below.

	Adults	Teenagers
Exercise Regularly	25	48
Do Not Exercise Regularly	35	12

What is the relative frequency that an adult exercises regularly?

- A. 21%
- B. 34%
- C. 42%
- D. 71%

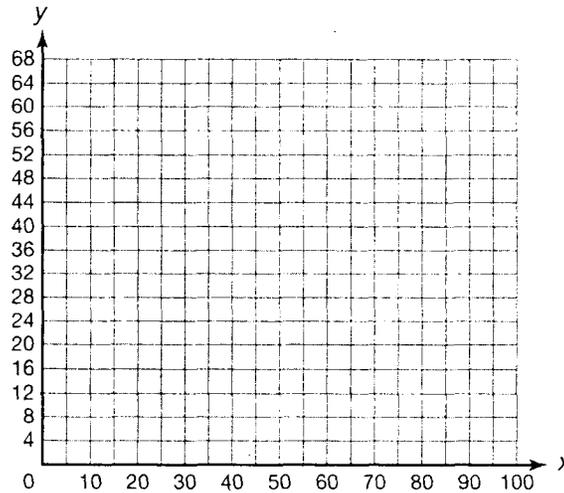
15. A restaurant manager collected the data below to determine if there is an association between the outdoor temperature and soup sales.

**Outdoor Temperature and Soup Sales**

Temperature (°F)	20	40	50	70	30	35	35	45	75
Cups of Soup Sold	50	40	38	24	50	42	42	38	26

Temperature (°F)	65	35	25	20	60	30	50	60	40
Cups of Soup Sold	28	42	48	20	34	40	34	30	44

- A. Make a scatter plot to display the data. Remember to label both axes and include a title for your graph.



- B. Describe the patterns in the data shown on the scatter plot, such as clustering, outliers, and positive or negative correlation. Is the linear association weak or strong? Explain.

15. **Continued.** Please refer to the previous page for task explanation.

**C.** Draw a line of best fit for the data on the scatter plot you made in Part A. Identify the  $y$ -intercept and the slope of the line of best fit. Then write an equation for the line.

**D.** Use your line of best fit to predict the number of cups of soup that the restaurant is likely to sell if the outdoor temperature reaches  $90^{\circ}\text{F}$ . Explain how you know.