

Chapter Test

Form A

Chapter 4

Solve each proportion.

1. $\frac{t}{4} = \frac{15}{10}$

6

3. $\frac{8}{7} = \frac{c}{14}$

16

5. $\frac{2}{1.2} = \frac{5}{k}$

3

7. $\frac{f}{8} = \frac{9}{18}$

4

2. $\frac{6}{8} = \frac{p}{12}$

9

4. $\frac{2.1}{6} = \frac{x}{4}$

1.4

6. $\frac{4}{7} = \frac{d}{28}$

16

8. $\frac{g}{20} = \frac{12}{48}$

5

Write an equation and solve.

9. What is 35% of 360?

126

10. 12 is what percent of 15?

80%

11. 18 is 80% of what number?

22.5

12. What percent of 80 is 24?

30%

13. Suppose you invested \$1200 for six years. You earned \$396 in simple interest at the end of six years. What is the annual interest rate?

5.5%

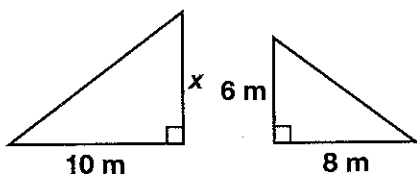
14. Last year, 460 seniors graduated from one high school. Seventy-five percent went on to college. How many seniors went on to college?

345

15. The scale of a map is 1 cm : 50 mi. Determine the distance between two cities that are 4.2 cm apart on the map.

210 mi.

16. The pair of figures is similar. Find the length of
- x
- .



7.5m.

Find each percent of change. Describe the percent of change as an increase or decrease.

17. 25 ft to 15 ft

-40%

18. 75 cm to 60 cm

-20%

19. 180 in. to 201.6 in.

+12%

20. In 1995, the total number of cars produced in the United States was 11,985,000. In 2000, the number of cars produced jumped to 12,855,000. Find the percent of change.

+7.3%

21. The U.S. Consumer Price Index for all urban consumers (CPI-U) based on the prices of all items for the second half of 1999 was 167.8. For the first half of 2000, the CPI-U increased to 170.7. Find the percent of change.

+1.7%

Source: *The World Almanac and Book of Facts, 2001*

Chapter Test (continued)

Form A

Chapter 4

22. The ratio of the number of right-handed students to left-handed students is $\frac{11}{2}$. If there are 38 left-handed students, how many students are right-handed? **209 students**
23. **Writing** Give an example of two independent events, and explain why they are independent. **Rolling a number cube twice - one time doesn't affect second time**
24. A coin is tossed three times. What is the probability of getting 3 tails in a row? **$\frac{1}{8}$**
25. A bank contains four dimes, seven nickels, and three quarters. Two coins are selected at random. Find each probability.
- a. $P(\text{quarter and quarter})$ with replacing **(A) $\frac{9}{196}$**
 - b. $P(\text{dime then nickel})$ without replacing **(B) $\frac{2}{13}$**
 - c. $P(\text{dime and quarter})$ with replacing **(C) $\frac{3}{49}$**
 - d. $P(\text{quarter then quarter})$ without replacing **(D) $\frac{3}{91}$**

Complete each statement.

26. $\$3.48/2 \text{ lbs} = \$$ **1.74** $/\text{lb}$
27. $4 \text{ qt/min} =$ **60** gal/h
28. $65 \text{ mi/h} =$ **5720** ft/min
29. $3 \text{ m/s} =$ **.18** km/min
30. **Open-Ended** Write and solve a percent problem that describes a situation in which you have used percents.

Cans of food were selected at random from a box. Use the data in the line plot to find each probability.

	X	
	X	X
	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
TUNA	PEAS	CORN

31. $P(\text{tuna})$ **$\frac{1}{4}$**
32. $P(\text{corn or peas})$ **$\frac{3}{4}$**
33. $P(\text{not corn})$ **$\frac{13}{20}$**
34. The length of a pair of scissors measures 17.6 cm. Find the percent error in your measurement. **.28%**
35. A 4-ft tall girl casts a shadow 8 ft long. She is standing next to a tree that casts a 24-ft shadow. How tall is the tree? **12 feet**