

Reteaching 6-5

Percent of Change

Percent of Increase

Example 1: Alex collects rare books. In 1997, he bought a book for \$10. In 1998, it was worth \$12. What is the percent of increase from 1997 to 1998?

$$\begin{aligned} \text{Percent increase} &= \frac{\text{amount of change}}{\text{original amount}} \\ &= \frac{12 - 10}{10} \\ &= \frac{2}{10} = 0.2 = 20\% \end{aligned}$$

NOTES

The value of Alex's book increased by 20%.

Percent of Decrease

Example 2: Alex sold one of his books in 1998 for \$8. The book cost \$12 in 1996. What is the percent of decrease from 1996?

$$\begin{aligned} \text{Percent decrease} &= \frac{\text{amount of change}}{\text{original amount}} \\ &= \frac{12 - 8}{12} \\ &= \frac{4}{12} = \frac{1}{3} \approx 33.3\% \end{aligned}$$

The value of Alex's book decreased by $33\frac{1}{3}\%$.

Find each percent of decrease. Round your answer to the nearest tenth of a percent.

1. \$40 to \$30

2. \$80 to \$40

3. 25 to 20

4. 11.5 h to 8 h

5. 99 lb to 87 lb

6. 55 to 30.8

7. 15 ft to 13 ft

8. 75 s to 46 s

9. 25 to 16.4

Find each percent of increase. Round your answer to the nearest tenth of a percent.

10. \$50 to \$60

11. \$90 to \$120.50

12. 120 min to 180 min

13. 60 to 77

14. 20 m to 35.7 m

15. 60 to 80

Practice 6-5

Percent of Change

Find each percent of change. Label your answer as increase or decrease. Round to the nearest tenth of a percent. **DO MIDDLE COLUMN.**

- | | | |
|-------------------------|---------------------------|---------------------------|
| 1. 15 to 20
_____ | 2. 18 to 10
_____ | 3. 10 to 7.5
_____ |
| 4. 86 to 120
_____ | 5. 17 to 34
_____ | 6. 32 to 24
_____ |
| 7. 27 to 38
_____ | 8. 40 to 10
_____ | 9. 8 to 10
_____ |
| 10. 43 to 86
_____ | 11. 100 to 23
_____ | 12. 846 to 240
_____ |
| 13. 130 to 275
_____ | 14. 193 to 270
_____ | 15. 436 to 118
_____ |
| 16. 457 to 318
_____ | 17. 607 to 812
_____ | 18. 500 to 118
_____ |
| 19. 346 to 843
_____ | 20. 526 to 1,000
_____ | 21. 1,000 to 526
_____ |
| 22. 489 to 751
_____ | 23. 286 to 781
_____ | 24. 846 to 957
_____ |

Solve.

DO ALL,

- | | |
|--|---|
| 25. In 1995, the price of a laser printer was \$1,299. In 2002, the price of the same type of printer had dropped to \$499. Find the percent of decrease.
_____ | 26. The amount won in harness racing in 1991 was \$1.238 million. In 1992, the amount was \$1.38 million. What was the percent of increase?
_____ |
| 27. In 1980, there were about 3 million people in Chicago. In 1990, the population was about 2.8 million people. Find the percent of decrease in the population of Chicago.
_____ | 28. Caryn was 58 in. tall last year. This year she is 61 in. tall. What is the percent of increase in her height?
_____ |
| 29. Last month, Dave weighed 175 lb. This month he weighs 164 lb. What is the percent of decrease in Dave's weight?
_____ | 30. Between the ages of 1 and 10 a life insurance policy costs \$3.84 per month. At the age of 11, the policy increases to \$6.12 per month. Find the percent of increase.
_____ |