

Assignment

Write

Write a definition for *depreciation* in your own words. Use an example in your definition.

Remember

A percent increase is calculated as a ratio of the amount of increase to the original amount.

A percent decrease is calculated as a ratio of the amount of decrease to the original amount.

Practice

Calculate each percent increase or percent decrease. Round to the nearest whole percent if necessary.

1. original amount: 30, new amount: 45
2. original amount: 12, new amount: 16
3. original amount: 17, new amount: 21
4. original amount: 85, new amount: 56
5. original amount: 48, new amount: 37
6. original amount: 124, new amount: 76

Use the given information to answer each question.

7. A dress that normally sells for \$72 is on sale for \$45. What is the percent decrease in the price?
8. A home purchased for \$120,000 in 2012 is sold for \$156,000 in 2015. What is the percent increase in the price?
9. The CD Warehouse purchases CDs for \$6 each and sells them for \$9 each. What is the percent increase in the price?
10. The CD Warehouse is having a clearance sale. A CD player that originally sells for \$60 is now priced at \$36. What is the percent decrease in the price?
11. The local high school sold 1914 tickets this year to its spring musical. That was 174 more tickets sold than last year. What is the percent increase in the number of tickets sold?
12. Ken's heart rate went from 74 beats per minute while resting to 148 beats per minute while exercising. What is the percent increase in his heart rate?

Stretch

Can you write a percent decrease as a negative ratio? Provide an example of a percent decrease written as a negative ratio and describe what it means in context.

Review

1. A T-shirt that costs \$14 without tax costs \$14.98 with tax. What is the sales tax percent?
2. A car that costs \$14,000 without tax costs \$14,700 with tax. What is the sales tax percent?
3. Identify the constant of proportionality in each situation.
 - a. The temperature rises 4 degrees each hour for 10 hours.
 - b. Two thirds of the floats in the parade have flowers.
4. Rewrite each algebraic expression with fewer terms.
 - a. $9.5(a + 4) - a$
 - b. $8 + h - 2 \times 5$