



Objective: REVIEW

Day 3**III. Percent Increase and Percent Decrease****A. Determine each percent increase or percent decrease.**

1. The local animal shelter had 12 dogs at the beginning of the week. Since then, the number of dogs at the shelter has decreased by 9. What is the percent change in the number of dogs at the animal shelter this week?
2. Haley has a collection of necklaces. Last month, she had 40 necklaces. She now has 76 necklaces. What is the percent change in the number of necklaces in Haley's collection from last month to now?
3. Last month, Ebony had 72 dollars in a checking account. The current balance is 126 dollars. What is the percent change in the account balance from last month to this month?
4. Last month, you conducted a survey for the student newspaper. Of the students that you surveyed, 20 thought that the student council president was doing a good job. You conduct the same survey this month. After surveying the same students, you find that 11 think that the student council president is doing a good job. What is the percent change in the number of students who think that the student council president is doing a good job from last month to this month?

5. Last season, your favorite basketball team won 20 games. So far this season, your favorite basketball team has won 31 games. What is the percent change in the number of games that your favorite team won from last season to this season?
6. Evita collects baseball cards and is trying to complete a special edition set of cards. Last month, she collected 25 cards. This month, she collected 19 cards. What is the percent change in the number of cards collected from last month to this month?
7. The Italian restaurant near your house sold 60 plain pizzas last week. They sold 39 fewer plain pizzas this week than last week. What is the percent change in the number of plain pizzas sold from last week to this week?
8. At the beginning of the month, Rachel's Used Car Dealership had 80 cars on the lot. Today, there are 100 cars on the lot. What is the percent change in the number of cars on the lot this month?
9. Last month, you joined an online strategy game. When you joined, there were 25 members. This month, there are 47 members. What is the percent change in the number of members from last month to this month?
10. At Joy's Toy Store, their most popular toy sold is a scooter. Last summer, the toy store sold 20 scooters. This summer, the store sold 27 scooters. What is the percent change in the number of scooters sold from last summer to this summer?
11. The peach tree in Anthony's back yard produced 56 pounds of peaches in one summer. The next summer, it produced 14 pounds less than the previous year. What is the percent change in the number of pounds of peaches produced from one summer to the next?
12. In summer, you want to put the wind chill factor to work for you. You know that using ceiling fans can make you feel 23 degrees cooler in a house that is 92 degrees, so you turn on your ceiling fans. What is the percent change in the temperature after the ceiling fans are turned on?

B. Answer each question.

1. Mr. Tate opened a new general store in the downtown area. On the day of the grand opening, he had 10 customers. The next day, he had 80% more customers than on the grand opening day. How many customers did Mr. Tate have on the second day?
2. Dante creates pottery. He brought 40 pieces to a show at the fall festival. When he went to the spring carnival, he brought 15% more pieces than he brought to the fall festival. How many pieces of pottery did Dante bring to the spring carnival?
3. Kulas Recital Hall is located on the campus of Oberlin Conservatory of Music in Oberlin, Ohio. One day before a piano recital was to take place, 30 tickets had been sold. Happily for the concert organizers an additional 80% of the 30 seats that were previously sold were sold on the actual day of the concert. The result was a sell-out. How many seats does Kulas Recital Hall have?
4. Matthew is scaling down a photograph that has an area of 8 square inches. He plans to reduce its area by 25%. What will be the area in square inches of the reduced photograph?
5. The heart of a black bear beats about 50 times per minute during normal sleep in the fall. When the animal hibernates in winter, its heart rate decrease by 84%. How many times per minute does a black bear's heart beat during hibernation?
6. Your aunt is a web designer. When she tones a photo for a website, she works with it in an image quality of 25 dots per inch (dpi). When she uploads it to the website, she reduces the quality by 60%. What is the dpi your aunt uses for a photo that she uploads to a website?

- 7.** Your sister works as a tutor in the evenings. Last school year she charged \$25 per hour for her services. After taking some certification classes over the summer, she increased her hourly charge by 40%. How much does your sister now charge per hour for her tutoring services?
- 8.** Your MP3 player has 40 gigabytes of music on it. During the next sync, you add 10% more music to it, and it is full. How many gigabytes does the MP3 player hold now?
- 9.** The local take-out pizza place sold 50 pepperoni pizzas last month. They sold 6% more pepperoni pizzas this month than last month. How many pepperoni pizzas did they sell this month?
- 10.** Last season, your favorite hockey team won 20 games. So far this season, the team has won 90% more games than last season. How many games has your favorite team won so far this season?
- 11.** Shannon has a collection of sports cards. Last month, she had 50 sports cards. Since last month, her collection has decreased by 46%. How many sports cards does Shannon have now?
- 12.** Each morning, Stacey makes 20 cinnamon bagels for his customers at Barney's Bagels. Because of a recent increase in the popularity of cinnamon bagels, she has increased the number she bakes each morning by 80%. How many cinnamon bagels does Stacey now bake each day?