**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Find each percent increase. Round to the nearest percent. The first one is done for you.**

40%

1. From $15 to $21 \_\_\_\_\_\_\_

2. From 12 teachers to 48 teachers \_\_\_\_\_\_\_

3. From 80 pencils to 152 pencils \_\_\_\_\_\_\_

4. From 40 cans to 70 cans \_\_\_\_\_\_\_

**Find each percent decrease. Round to the nearest percent. The first one is done for you.**

81%

5. From 80 miles to 15 miles \_\_\_\_\_\_\_

6. From 100 ounces to 25 ounces \_\_\_\_\_\_\_

7. From $60 to $40 \_\_\_\_\_\_\_

8. From 39 seconds to 13 seconds \_\_\_\_\_\_\_

**Find the new amount given the original amount and the percent of change. The first one is done for you.**

$27.50

9. $25; 10% increase \_\_\_\_\_\_\_ 10. 160 bananas; 20% decrease \_\_\_\_\_\_\_

11. 200 books; 75% decrease \_\_\_\_\_\_\_ 12. 52 companies; 25% increase \_\_\_\_\_\_\_

**Solve.**

13. Last year, there were 400 students at Woodland Middle School. This year, the student population will increase by 5%. What will be the school’s student population this year?

14. A backpack that normally sells for $39 is on sale for 30% off. Find the amount of the sale price.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. Sam purchased a television for $295. The sales tax on the tv is 6.8%. Find the total amount Sam will paid for the television.

16. Last year, there were 430 students at Woodland Middle School. This year, the student population will increase by 9%. What will be the school’s increased student population?

17. A sweater that normally sells for $89 is on sale for 23% off. Find the amount of the discount and the sale price.

18. In May, the Simons’ electric bill was $97. In June, it was 15% lower. What was the Simons’ water bill in September?

19. A gallery owner purchased a very old painting for $2,600. The painting sells at a 225% increase in price. What is the retail price of the painting?

20. A bike usually cost $128. The bike is on sale for $90. What is the percent change for the price of the bike?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

21. Mary made $320 selling lemonade this month. She gives 20% of her earnings to charity, she puts 15% of her earnings in a savings account. Mary uses the rest of her money for entertainment. How much money does Mary have left for entertainment?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

22. Kobe average 12 points per game last season. The following season Kobe averaged 20 points per game. What is the percent change in the amount of points Kobe averaged?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_