

Write each as a **percent**.

1. 0.34 \_\_\_\_\_ 2. 0.05 \_\_\_\_\_ 3. 0.00625 \_\_\_\_\_ 4. 3.5 \_\_\_\_\_

Write each as a **decimal** and **reduced fraction**.

5. 21% \_\_\_\_\_ 6. 15% \_\_\_\_\_ 7. 650% \_\_\_\_\_ 8. .8% \_\_\_\_\_

Write the fraction as a **decimal** and as a **percent**.

9.  $\frac{3}{16}$  \_\_\_\_\_ 10.  $\frac{31}{80}$  \_\_\_\_\_  
11.  $\frac{53}{25}$  \_\_\_\_\_ 12.  $\frac{7}{140}$  \_\_\_\_\_

Solve each problem using the **equation method**. Please show the **equations and work** for each problem in the space provided.

13. What number is 45% of 580? 14. What percent of 160 is 62?

13. \_\_\_\_\_ 14. \_\_\_\_\_

Solve each problem using the **proportion method**. Please show the **proportion and work** for each problem in the space provided.

15. 60% of what number is 348? 16. 320% of 69 is what number?

15. \_\_\_\_\_ 16. \_\_\_\_\_

Solve each of the remaining problems using **either the equation or the proportion method**. Be sure to show your equation or proportion in the space provided.

17. 48 is what percent of 642? 18. 34 is 68% of what number?

17. \_\_\_\_\_ 18. \_\_\_\_\_

19. 110% of 124 is what number?

20. What is 34% of 375?

19. \_\_\_\_\_

20. \_\_\_\_\_

Find the percent of change (rounded to the nearest tenth of a percent). Show all proportions or equations.

21. 125 is increased to 210.

22. 50 is decreased to 14.

23. 45 is increased to 180.

21. \_\_\_\_\_

22. \_\_\_\_\_

23. \_\_\_\_\_

24. Mrs. Rogers sold 49 out of 78 crafts at the fair. What percent of her crafts did she sell? Show your proportion or equation set-up.

24. \_\_\_\_\_

25. Bill bought a shirt for \$35.80 plus he paid an additional 7% in sales tax. What was the final cost? Show your proportion or equation set-up.

25. \_\_\_\_\_

26. Kathy bought a pair of jeans on sale for 30% off of the regular price. If the jeans regularly cost \$75.00. How much did she pay? Show your proportion or equation set-up.

26. \_\_\_\_\_

27. There are 625 students at Median Middle School. If there 8% of the students were absent on Tuesday, how many students were absent?

27. \_\_\_\_\_

28. A store buys cell phones from the manufacturer for \$34.40 and marks them up by 85%. How much do they charge for the phones (what is the retail price)?

28. \_\_\_\_\_

29. A new top-selling DVD is marked 20% off at Discount DVD, where it normally sells for \$29.90. The same disc sells for \$28.60 at Value Video, where you have a coupon for 15% off anything in the store. Where would you buy the DVD? Explain how you decided and be sure to include work to support your answer.

30. You put \$500 in the bank, where it earns 1.5% simple interest each year. How long until your money will triple?

**31. 25% off Sale**

A) In a sale, all the prices are reduced by 25%. Jane sees a jacket before the sale. What is the sale price?

In the second week of the sale, the prices are reduced by 25% more.

In the third week, by 25% more.

In the fourth week, the prices are again reduced by 25% more.

B) Jane thinks this will mean that the prices will be reduced to \$0 after the four reductions because  $4 \times 25\% = 100\%$ . Explain why Jane is wrong.

C) If Jane is able to buy her jacket after the four reductions.

a. How much will she have to pay?

b. What percentage of the original price does she save?

### 32. T-shirt Sale



- A) Tom bought these three T-shirts at the sale price of \$14.50. How much money did he save compared to the original total price of the T-shirts?
- B) What percentage of the total price did Tom save?