

Algebra - Unit 3
Day 13: Review Worksheet

Name: _____

Date: _____

Solve.

1. $x + 6 = 13$

2. $-10 = x - 3$

3. $-\frac{2}{5}x = 10$

4. $-6 = \frac{x}{4}$

5. $3x - 1 = 8$

6. $8 = \frac{4 + 2x}{3}$

7. $5x + 4 - 8x = 13$

8. $2(x - 1) + 3(2x + 1) = -7$

9. $9b + 8 = 10b$

10. $-2f = 6f + 24$

11. $5x - 21 = -2x + 28$

12. $9x - 8 = 9x + 12$

13. $5 - 6(x + 3) = 4x - 8$

14. $7x - 2(10 - 3x) = -3(2x - 6)$

15. $5x - 7 + 2x = 3x - 2 + 4x - 5$

16. $-5(6 - w) = 9(w + 2) - 16$

17. $A = lw$ for w

18. $I = prt$ for r

19. $g = 3h + k$ for h

20. $ax + by = c$ for y

Write an equation to solve the problems.

21. What is 23% of 400?

22. 32 is 20% of what number?

23. 78 is what percent of 120?

24. What percent of 80 is 140?

25. The drama department needs to buy new costumes that cost \$2000. They have raised \$800 already and hope to sell licorice sticks to reach the amount. If they sell licorice sticks for \$4 each, then how many must they sell in order to raise the money needed for the costumes?
26. You have already saved \$500 towards the purchase of a new car and intend to make the rest of the money by washing cars. If you plan to charge \$15 per car and the new car costs \$20,000, how many cars will you need to wash in order to have enough money to buy the new car?
27. You have \$60 and plan to save \$5 per week, while your friend has \$510 and plans to spend \$25 per week. After how many weeks will you and your friend have the same amount of money? At that time, how much will each of you have?
28. Woodfield Mall charges 8.75% sales tax of its merchandise. Julie goes to Woodfield and decides to buy a blouse for \$30, shoes for \$35, and pants for \$40. How much total sales tax will she have to pay on all of these items? What will her total bill be for the shopping trip?