

$$3. \frac{y-1}{4} = -2$$

$$4. -x - 4 = 9$$

5. **Fundraising** The junior class is selling granola bars to raise money. They purchased 1250 granola bars and paid a delivery fee of \$25. The total cost, including the delivery fee, was \$800. What was the cost of each granola bar?

Explain.

$$6. -8 = \frac{s}{4} + 3$$

$$7. 2x - 9 = 7$$

$$8. \frac{x}{3} - 8 = 4$$

$$9. -4x + 3 = -5$$

10. **Reasoning** Can you solve the equation $\frac{d-3}{5} = 6$ by adding 3 before multiplying by 5? Explain.



Practice and Problem-Solving Exercises



Practice

Solve each equation. Check your answer.

$$11. 2 + \frac{a}{4} = -1$$

$$12. 3n - 4 = 11$$

$$13. -1 = 7 + 8x$$

$$14. \frac{y}{5} + 2 = -8$$

$$15. 4b + 6 = -2$$

$$16. 10 = \frac{x}{4} - 8$$

$$17. 10 + \frac{h}{3} = 1$$

$$18. -14 = -5 + 3c$$

$$19. 26 = \frac{m}{6} + 5$$

$$20. \frac{a}{5} - 18 = 2$$

$$21. -5x - 2 = 13$$

$$22. 14 = -2k + 3$$

◀ See Problem 1.

Define a variable and write an equation for each situation. Then solve.

◀ See Problem 2.

23. **Maximum Capacity** A delivery person uses a service elevator to bring boxes of books up to an office. The delivery person weighs 160 lb and each box of books weighs 50 lb. The maximum capacity of the elevator is 1000 lb. How many boxes of books can the delivery person bring up at one time?
24. **Shopping** You have \$16 and a coupon for a \$5 discount at a local supermarket. A bottle of olive oil costs \$7. How many bottles of olive oil can you buy?
25. **Rentals** Two college friends rent an apartment. They have to pay the landlord two months' rent and a \$500 security deposit when they sign the lease. The total amount they pay the landlord is \$2800. What is the rent for one month?

Solve each equation. Check your answer.

◀ See Problem 3.

$$26. \frac{y-4}{2} = 10$$

$$27. 7 = \frac{x-8}{3}$$

$$28. \frac{z+10}{9} = 2$$

$$29. 4 = \frac{a+10}{2}$$

$$30. 7\frac{1}{2} = \frac{x+3}{2}$$

$$31. \frac{b+3}{5} = -1$$

$$32. -2 = \frac{d-7}{7}$$

$$33. \frac{g-3}{3} = \frac{5}{3}$$

Solve each equation. Justify each step.

◀ See Problem 4.

$$34. 14 - b = 19$$

$$35. 20 - 3h = 2$$

$$36. 3 - \frac{x}{2} = 6$$

$$37. -1 = 4 + \frac{x}{3}$$