

Practice A

For use with pages 145–152

Check whether the given number is a solution of the equation.

1. $5x - 3 = 28$; 5

2. $6x + 4 = -2$; -1

3. $4(x - 3) = -16$; -1

4. $\frac{x}{4} + 6 = -12$; -24

5. $7 - 2x = 13$; -3

6. $\frac{1}{4}x - 8 = -7$; -4

State the first step in solving the equation.

7. $5x + 9 = 24$

8. $3x - 5 = 22$

9. $42 = 6 + 9x$

10. $2(3x - 4) = 29$

11. $33 = 3x + 8x$

12. $8 - 2x = 10$

Solve the equation.

13. $3x + 8 = 32$

14. $5x - 4 = 21$

15. $2x + 3 = 11$

16. $3x - 1 = 8$

17. $5x - 20 = 5$

18. $2x + 5 = -2$

19. $-4 = \frac{1}{2}x + 3$

20. $\frac{2}{3}x + 11 = 7$

21. $\frac{2}{3}x - \frac{2}{3} = 0$

Solve the equation by simplifying both sides and then using transformations to isolate the variable.

22. $2x + 3x = 5$

23. $10x - 3x = 20 + 1$

24. $2(x - 4) = 2$

25. $\frac{1}{3}(x + 6) = 1$

26. $4 = \frac{2}{3}x + 9 + \frac{1}{3}x$

27. $14 = -2(4x + 5)$

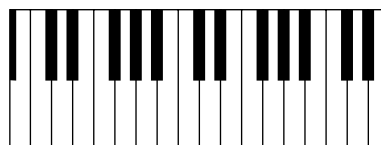
28. $17 = 2(2x + 9)$

29. $5x - 8x = 18$

30. $2(x + 5) + 3x = 0$

In Exercises 31 and 32, write and solve an equation to answer the question.

31. **Piano Keyboard** The keyboard of a piano has seven full octaves with 5 black keys in each octave and one extra black key. There are a total of 88 black and white keys on a piano. How many white keys are on a piano?



Part of a keyboard

32. **Band Fundraiser** Your school band needs to buy new percussion equipment. The equipment will cost \$2000. You have collected \$800 in previous fundraisers. If you sell sandwiches at \$4 each, how many sandwiches will you need to sell to raise the remaining funds?

Cost per sandwich	·	Number of sandwiches sold	+	Money already raised	=	Cost of equipment
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