

Practice A

For use with pages 154–159

Describe each step used in solving the equation.

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|----------------------|-----------------------|--------------------|
| 1. $9x - 4 = 7x + 8$ | 2. $-4x + 9 = 2x + 3$ | 3. $4(2x - 9) = 4$ |
| A. $2x - 4 = 8$ | A. $-4x + 6 = 2x$ | A. $8x - 36 = 4$ |
| B. $2x = 12$ | B. $6 = 6x$ | B. $8x = 40$ |
| C. $x = 6$ | C. $1 = x$ | C. $x = 5$ |

Solve the equation and describe each step you use.

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|-------------------|------------------|--------------------|
| 4. $2x = x + 9$ | 5. $4x - 6 = 3x$ | 6. $-2x = -3x + 8$ |
| 7. $7x = 5x + 24$ | 8. $7x + 5 = 6x$ | 9. $12x = 9x - 15$ |

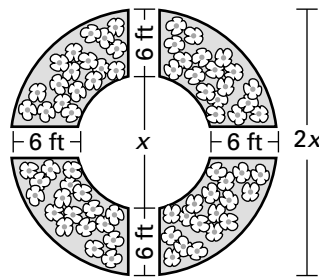
Solve the equation if possible.

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|-------------------------|---------------------------------------|--|
| 10. $2x + 5 = 3x$ | 11. $-2x = -4x + 20$ | 12. $7x - 20 = -3x$ |
| 13. $7x = 4x - 9$ | 14. $-8x - 70 = 2x$ | 15. $8x - 3 = 8x$ |
| 16. $3(x - 1) = 3x - 3$ | 17. $2x + 3 = 4x + 5$ | 18. $-3x - 4 = 4x + 10$ |
| 19. $8x - 3 = 19 + 5x$ | 20. $\frac{1}{3}x = 7 - \frac{2}{3}x$ | 21. $\frac{1}{4}x + 3 = \frac{-1}{4}x$ |

In Exercises 22–24, write and solve an equation to answer the question.

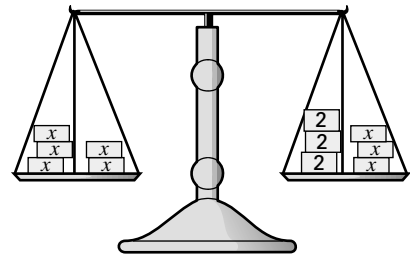
22. Dimensions of a Circular Flower Garden

A flower garden has the shape pictured below. The diameter of the outer circle is twice the diameter of the inner circle. The lengths of the walkways are each 6 feet long. What is the diameter of the inner circle?



23. Balanced Scale

On one side of a scale there are 6 blocks, 3 weighing 2 grams each and 3 weighing x grams each. The scale is balanced if 5 blocks weighing x grams each are placed on the other side of the scale. How much does each of the unknown blocks weigh?



24. Distance-Rate-Time Two cars travel the same distance. The first car travels at a rate of 40 miles per hour and reaches its destination in t hours. The second car travels at a rate of 55 miles per hour and reaches its destination 3 hours earlier than the first car. How long does it take for the first car to reach its destination?

Rate of car 1	·	Time for car 1	=	Rate of car 2	·	Time for car 2
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