

9.1**Practice**

For use with pages 453–457

Find the square roots of the number.

1. 36

2. 361

3. 729

4. 1089

5. 4900

6. 10,000

Approximate the square root to the nearest integer.

7. $\sqrt{39}$

8. $-\sqrt{85}$

9. $\sqrt{105}$

10. $-\sqrt{136}$

11. $\sqrt{17.4}$

12. $-\sqrt{3.3}$

Use a calculator to approximate the square root. Round to the nearest tenth.

13. $\sqrt{5}$

14. $-\sqrt{12}$

15. $\sqrt{102}$

16. $-\sqrt{74}$

17. $\sqrt{1585}$

18. $\sqrt{27.8}$

Evaluate the expression when $a = 72$ and $b = 8$.

19. $\sqrt{a - b}$

20. $\sqrt{a + b + 1}$

21. $-4\sqrt{ab}$

9.2

Practice

For use with pages 458-461

Simplify the expression.

1. $\sqrt{54}$

2. $\sqrt{112}$

3. $\sqrt{176}$

4. $\sqrt{180}$

5. $\sqrt{117f}$

6. $\sqrt{432y^2}$

7. $\sqrt{\frac{120}{121}}$

8. $\sqrt{\frac{75}{225}}$

9. $\sqrt{\frac{202}{256}}$

10. $\sqrt{\frac{320}{441}}$

11. $\sqrt{\frac{21v^2}{324}}$

12. $\sqrt{\frac{94t}{196}}$

13. A square has an area of 700 square units. Find the length of a side of the square as a radical expression in simplest form.

Simplify the expression.

14. $\sqrt{171cd^2}$

15. $\sqrt{152m^2n}$

16. $\sqrt{126x^2y^2}$

17. $\sqrt{\frac{23w^2}{49}}$

18. $\sqrt{\frac{45rt^2}{144}}$

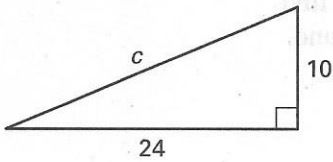
19. $\sqrt{\frac{76p^2q^2}{81}}$

Practice

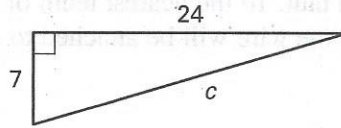
For use with pages 464–469

Find the unknown length. Write your answer in simplest form.

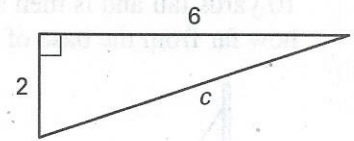
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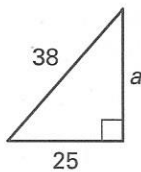
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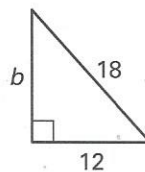
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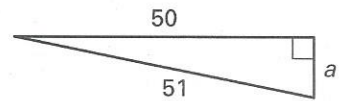
4.



5.



6.



Determine whether the triangle with the given side lengths is a right triangle.

7. 8, 15, 17

8. 20, 21, 28

9. 9, 12, 15

10. 11, 13, 17

11. 5, 64, 65

12. 12, 25, 27

The lengths of two sides of a right triangle are given. Find the length of the third side.

13. $a = 9, c = 41$

14. $a = 40, c = 58$

15. $b = 56, c = 65$

16. $b = 70, c = 74$

17. $a = 13, b = 84$

18. $a = 16, b = 63$