

Triangles

Squares and Square Roots

$$x^2 = x \cdot x$$

$$6^2 = 6 \cdot 6 = 36$$

$$15^2 = 15 \cdot 15 = 225$$

$$\sqrt{x^2} = \sqrt{x \cdot x} = x$$

$$\sqrt{49} = \sqrt{7 \cdot 7} = 7$$

$$\sqrt{400} = \sqrt{20^2} = 20$$

$$\sqrt{50} = \sqrt{2 \cdot 5 \cdot 5} = 5\sqrt{2}$$

$$\sqrt{300} = \sqrt{2 \cdot 2 \cdot 3 \cdot 5 \cdot 5}$$

$$= 2 \cdot 5\sqrt{3}$$

$$= 10\sqrt{3}$$

Find the indicated squares.

1. 11^2

2. 8^2

3. 4^2

4. $(\frac{1}{2})^2$

5. 1.1^2

6. 1^2

7. 5^2

8. 6^2

9. 2.3^2

10. 1.2^2

11. $(\frac{2}{3})^2$

12. $(\frac{1}{4})^2$

Find the indicated square roots.

13. $\sqrt{4}$

14. $\sqrt{81}$

15. $\sqrt{100}$

16. $\sqrt{64}$

17. $\sqrt{121}$

18. $\sqrt{25}$

19. $\sqrt{9}$

20. $\sqrt{49}$

21. $\sqrt{16}$

22. $\sqrt{1.44}$

23. $\sqrt{\frac{1}{9}}$

24. $\sqrt{\frac{4}{25}}$

Simplify each of the following.

25. $\sqrt{200}$

26. $\sqrt{45}$

27. $\sqrt{240}$

28. $\sqrt{32}$

29. $\sqrt{128}$

30. $\sqrt{75}$

31. $\sqrt{192}$

32. $\sqrt{125}$

33. $\sqrt{80}$

34. $\sqrt{216}$