

Sample

$$\sqrt{\left(\frac{3}{7}\right)^2} = \sqrt{\frac{3^2}{7^2}} = \frac{\sqrt{3^2}}{\sqrt{7^2}} = \frac{3}{7}$$

21. $\sqrt{\left(\frac{2}{5}\right)^2}$

22. $\sqrt{\left(\frac{12}{29}\right)^2}$

23. $\left(\sqrt{\frac{7}{11}}\right)^2$

24. $\left(\sqrt{\frac{5}{23}}\right)^2$

Written Exercises

Find the indicated square root.

A

1. $\sqrt{36}$

2. $\sqrt{64}$

3. $\sqrt{100}$

4. $\sqrt{121}$

5. $-\sqrt{400}$

6. $-\sqrt{196}$

7. $\sqrt{625}$

8. $\sqrt{576}$

9. $\pm\sqrt{2500}$

10. $\pm\sqrt{1225}$

11. $-\sqrt{\frac{81}{1600}}$

12. $-\sqrt{\frac{225}{49}}$

13. $\pm\sqrt{\frac{121}{25}}$

14. $\pm\sqrt{\frac{1}{256}}$

15. $\sqrt{\frac{144}{441}}$

16. $\sqrt{\frac{529}{576}}$

17. $-\sqrt{\frac{484}{100}}$

18. $-\sqrt{\frac{324}{729}}$

19. $\sqrt{\frac{361}{2304}}$

20. $\sqrt{\frac{1156}{289}}$

Sample 1

$$\sqrt{\frac{18}{32}} = \sqrt{\frac{2 \cdot 9}{2 \cdot 16}} = \sqrt{\frac{9}{16}} = \frac{3}{4}$$

B

21. $-\sqrt{\frac{28}{63}}$

22. $-\sqrt{\frac{12}{75}}$

23. $\sqrt{\frac{99}{44}}$

24. $\sqrt{\frac{20}{45}}$

25. $\pm\sqrt{\frac{175}{28}}$

26. $\pm\sqrt{\frac{92}{207}}$

27. $\sqrt{\frac{7}{175}}$

28. $\sqrt{\frac{5}{180}}$

29. $\pm\sqrt{\frac{33}{132}}$

30. $\pm\sqrt{\frac{180}{845}}$

31. $-\sqrt{\frac{3200}{648}}$

32. $-\sqrt{\frac{1682}{20,000}}$

Find the indicated square root. Express as a decimal. You may wish to use a calculator to check your answers.

Sample 2

$$\sqrt{0.64} = \sqrt{\frac{64}{100}} = \frac{\sqrt{64}}{\sqrt{100}} = \frac{8}{10} = 0.8$$

33. $\sqrt{0.04}$

34. $\sqrt{0.09}$

35. $-\sqrt{0.81}$

36. $-\sqrt{0.64}$

37. $\sqrt{1.21}$

38. $\sqrt{2.25}$

39. $\pm\sqrt{7.84}$

40. $\pm\sqrt{12.25}$

41. $\sqrt{0.0196}$

42. $\sqrt{0.0289}$

43. $\sqrt{0.0009}$

44. $\sqrt{0.000049}$

Evaluate the expression $\sqrt{x^2 - y^2} - (\sqrt{x})^2$ for the given values of x and y .

45. $x = 5, y = 3$

46. $x = 17, y = 15$

47. $x = 20, y = 16$

48. $x = 37, y = 12$