

1. Simplify without using a calculator.

$$\sqrt{0.00000001}$$

2. Simplify without using a calculator.

$$\sqrt{0.000001}$$

3. Simplify without using a calculator.

$$\sqrt{0.000001}$$

4. Use the product property of square roots to simplify.

$$\sqrt{360}$$

5. Use the product property of square roots to simplify.

$$\sqrt{1900}$$

6. Use the product property of square roots to simplify.

$$\sqrt{160}$$

7. Use the product property of square roots to simplify.

$$\sqrt{160}$$

8. Use the product property of square roots to simplify.

$$\sqrt{2900}$$

9. Use the product property of square roots to simplify.

$$\sqrt{200}$$

10. Simplify the radical expression without using a calculator.

$$\frac{15 + \sqrt{45}}{15}$$

11. Simplify the radical expression without using a calculator.

$$\frac{14 + \sqrt{28}}{14}$$

12. Simplify the radical expression without using a calculator.

$$\frac{4 + \sqrt{8}}{4}$$

13. Simplify the radical expression without using a calculator.

$$\frac{6 + \sqrt{12}}{6}$$

14. Simplify the radical expression without using a calculator.

$$\frac{6 + \sqrt{12}}{6}$$

15. Simplify the radical expression without using a calculator.

$$\frac{10 + \sqrt{20}}{10}$$

16. Find the square root without a calculator.

$$\sqrt{2.25}$$

17. Find the square root without a calculator.

$$\sqrt{1.44}$$

18. Find the square root without a calculator.

$$\sqrt{3,600,000,000}$$

19. Find the square root without a calculator.

$$\sqrt{400,000,000}$$

20. Use the product property of square roots and factoring to simplify the expression.

$$\frac{\sqrt{20} + \sqrt{80} - (\sqrt{28} + \sqrt{112})}{\sqrt{5} - \sqrt{7}}$$

21. Use the product property of square roots and factoring to simplify the expression.

$$\frac{\sqrt{175} + \sqrt{28} - (\sqrt{75} + \sqrt{12})}{\sqrt{7} - \sqrt{3}}$$

22. Use the product property of square roots and factoring to simplify the expression.

$$\frac{\sqrt{45} + \sqrt{20} - (\sqrt{27} + \sqrt{12})}{\sqrt{5} - \sqrt{3}}$$

Answer Key

1. 0.0001
2. 0.001
3. 0.001
4. $6\sqrt{10}$
5. $10\sqrt{19}$
6. $4\sqrt{10}$
7. $4\sqrt{10}$
8. $10\sqrt{29}$
9. $10\sqrt{2}$
10. $\frac{5+\sqrt{5}}{5}$
11. $\frac{7+\sqrt{7}}{7}$
12. $\frac{2+\sqrt{2}}{2}$
13. $\frac{3+\sqrt{3}}{3}$
14. $\frac{3+\sqrt{3}}{3}$
15. $\frac{5+\sqrt{5}}{5}$
16. 1.5
17. 1.2
18. 60,000
19. 20,000
20. 6
21. 7
22. 5