

Square Root Extra Practice 1

Simplify. Write your answers as integers or fractions. Write \emptyset if there is not a real answer.

1. $\sqrt{16}$

2. $-\sqrt{25}$

3. $\sqrt{-9}$

4. $\sqrt{121}$

5. $\sqrt{-225}$

6. $\sqrt{16 + 33}$

7. $\sqrt{144} - 2\sqrt{100}$

8. $\sqrt{36}\sqrt{64}$

9. $\frac{\sqrt{49}}{\sqrt{81}}$

10. $\frac{2\sqrt{9}}{\sqrt{25}}$

Simplify. Show the prime factoring. Write your answer in simple radical form.

11. $\sqrt{8}$

12. $\sqrt{40}$

13. $\sqrt{24}$

14. $\sqrt{98}$

15. $\sqrt{32}$

16. $3\sqrt{28}$

17. $44\sqrt{18}$

18. $-2\sqrt{72}$

Multiply and simplify. Show the prime factoring. Write your answer in simple radical form.

19. $\sqrt{5} \cdot \sqrt{3}$

20. $\sqrt{6} \cdot \sqrt{2}$

21. $3\sqrt{3} \cdot \sqrt{2}$

22. $\sqrt{5} \cdot \sqrt{10}$

23. $\sqrt{50} \cdot \sqrt{2}$

24. $\sqrt{30} \cdot \sqrt{3}$

25. $4\sqrt{2} \cdot \sqrt{5}$

26. $7\sqrt{6} \cdot 2\sqrt{2}$

27. $2\sqrt{3} \cdot \sqrt{8}$

28. $-9\sqrt{10} \cdot 7\sqrt{15}$

Divide and simplify. Show the prime factoring. Write your answer in simple radical form.

29. $\frac{\sqrt{30}}{\sqrt{3}}$

30. $\frac{\sqrt{20}}{\sqrt{4}}$

31. $\sqrt{\frac{25}{64}}$

32. $\sqrt{\frac{18}{3}}$

Add or subtract. Write your answer in simple radical form.

33. $2\sqrt{3} - 5\sqrt{5} + 6\sqrt{3}$

34. $\sqrt{12} + 3\sqrt{3}$

35. $2\sqrt{9} + 3\sqrt{12}$

36. $\sqrt{8} + 5\sqrt{2} - 6\sqrt{2}$

37. $10\sqrt{8} - \sqrt{72} + 3\sqrt{98}$

38. $\sqrt{12} - \sqrt{27} + \sqrt{48}$