

11-8a Page 843 #1-8, 27-32

Multiply. Write each product in simplest form.

1. $\sqrt{2}\sqrt{3}$

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

3. $(5\sqrt{5})^2$

4. $(4\sqrt{2})^2$

5. $3\sqrt{3a}\sqrt{10}$

6. $2\sqrt{15p}\sqrt{3p}$

7. $\sqrt{6}(2 + \sqrt{7})$

8. $\sqrt{3}(5 - \sqrt{3})$

9. $\sqrt{7}(\sqrt{5} - \sqrt{3})$

Multiply. Write each product in simplest form.

27. $\sqrt{3}\sqrt{5}\sqrt{6}$

28. $3\sqrt{6}(5\sqrt{6})$

29. $(2\sqrt{2})^2$

30. $(3\sqrt{6})^2$

31. $\sqrt{21d}(2\sqrt{3d})$

32. $4\sqrt{5n}(2\sqrt{5n})(3\sqrt{3n})$

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9. $\sqrt{7}(\sqrt{5} - \sqrt{3})$

10. $\sqrt{2}(\sqrt{10} + 8\sqrt{2})$

11. $\sqrt{5y}(\sqrt{15} + 4)$

12. $\sqrt{2t}(\sqrt{6t} - \sqrt{2t})$

13. $(2 + \sqrt{2})(5 + \sqrt{2})$

14. $(4 + \sqrt{6})(3 - \sqrt{6})$

15. $(\sqrt{3} - 4)(\sqrt{3} + 2)$

16. $(5 + \sqrt{3})^2$

17. $(\sqrt{6} - 5\sqrt{3})^2$

18. $(6 + 3\sqrt{2})^2$

Simplify each quotient.

19. $\frac{\sqrt{13}}{\sqrt{2}}$

20. $\frac{\sqrt{20}}{\sqrt{8}}$

21. $\frac{\sqrt{11}}{6\sqrt{3}}$

22. $\frac{\sqrt{28}}{\sqrt{3s}}$

23. $\frac{2}{\sqrt{7}}$

24. $\frac{3}{\sqrt{6}}$

25. $\frac{1}{\sqrt{5x}}$

26. $\frac{\sqrt{3}}{\sqrt{x}}$

37. $\sqrt{3f}(\sqrt{3} + 12)$

38. $\sqrt{8m}(\sqrt{10} + \sqrt{2m})$

39. $(15 + \sqrt{15})(4 + \sqrt{15})$

40. $(\sqrt{6} + 4)(\sqrt{2} - 7)$

Simplify each quotient

45. $\frac{\sqrt{75}}{\sqrt{2}}$

47. $\frac{\sqrt{27}}{3\sqrt{x}}$

46. $\frac{\sqrt{5}}{4\sqrt{8}}$

48. $\frac{\sqrt{48k}}{\sqrt{5}}$