

NAME _____ DATE _____ PER. _____

SQUARE ROOTS

Simplify.

1. $8\sqrt{3} - 6\sqrt{3} =$ _____	2. $9\sqrt{5} + 4\sqrt{5} =$ _____
3. $-13\sqrt{17} - 7\sqrt{17} =$ _____	4. $9\sqrt{13} - 6\sqrt{11} + \sqrt{13} =$ _____
5. $5\sqrt{3} + 2\sqrt{75} =$ _____	6. $-2\sqrt{24} - 3\sqrt{6} =$ _____
7. $3\sqrt{32} - 4\sqrt{63} =$ _____	8. $3\sqrt{45} + 7\sqrt{36} =$ _____
9. $5\sqrt{28} + 2\sqrt{45} =$ _____	10. $-4\sqrt{75} + 3\sqrt{147} =$ _____
11. $-11\sqrt{8} - 7\sqrt{12} =$ _____	12. $\sqrt{150} - 5\sqrt{96} =$ _____
13. $5\sqrt{80} - 12\sqrt{5} =$ _____	
14. $-4\sqrt{2} + 6\sqrt{72} - 8\sqrt{32} =$ _____	

15. $5\sqrt{28} + 2\sqrt{7} - \sqrt{14} =$ _____

16. $-3\sqrt{72} + 6\sqrt{52} - 7\sqrt{128} =$ _____

17. $-\sqrt{338} - \sqrt{200} + \sqrt{162} =$ _____

18. $4\sqrt{112} + 5\sqrt{56} - 9\sqrt{126} =$ _____

19. $\sqrt{3} \cdot \sqrt{11} =$ _____

20. $(-4\sqrt{3})(-2\sqrt{5}) =$ _____

21. $(\sqrt{11})^2 =$ _____

22. $(\sqrt{6})^2 =$ _____

23. $3\sqrt{7} \cdot 5\sqrt{7} =$ _____

24. $(9\sqrt{2})^2 =$ _____

25. $-2\sqrt{4} \cdot 4\sqrt{5} =$ _____

26. $-5\sqrt{3} \cdot 6\sqrt{3} =$ _____

27. $3\sqrt{2} \cdot 8\sqrt{4} =$ _____

28. $\sqrt{\frac{3}{8}} \cdot \sqrt{\frac{7}{2}} =$ _____

29. $4\sqrt{5} \cdot 2\sqrt{10} =$ _____

30. $\sqrt{\frac{11}{2}} \cdot \sqrt{\frac{7}{18}} =$ _____

31. $\sqrt{\frac{4}{5}} \cdot \sqrt{\frac{9}{20}} =$ _____

32. $(10\sqrt{3})^2 =$ _____

33. $2\sqrt{18} \cdot 3\sqrt{5} =$ _____

34. $\sqrt{20} \cdot \sqrt{6} =$ _____

35. $-3\sqrt{3} \cdot \sqrt{18} =$ _____

36. $7\sqrt{2} \cdot \sqrt{10} =$ _____

37. $\sqrt{\frac{5}{4}} \cdot \sqrt{\frac{8}{9}} =$ _____

38. $(-5\sqrt{8})(-3\sqrt{5}) =$ _____

39. $\frac{21\sqrt{96}}{3\sqrt{3}} = \underline{\hspace{2cm}}$

40. $\frac{\sqrt{80}}{\sqrt{5}} = \underline{\hspace{2cm}}$

41. $\frac{9}{\sqrt{5}} = \underline{\hspace{2cm}}$

42. $\frac{3}{\sqrt{6}} = \underline{\hspace{2cm}}$

43. $\frac{1}{\sqrt{2}} = \underline{\hspace{2cm}}$

44. $\frac{\sqrt{150}}{\sqrt{2}} = \underline{\hspace{2cm}}$

45. $\sqrt{\frac{361}{484}} = \underline{\hspace{2cm}}$

46. $\frac{7}{\sqrt{7}} = \underline{\hspace{2cm}}$

47. $\sqrt{\frac{2}{8}} = \underline{\hspace{2cm}}$

48. $\frac{\sqrt{24}}{\sqrt{2}} = \underline{\hspace{2cm}}$

49. $\frac{3\sqrt{20}}{\sqrt{5}} = \underline{\hspace{2cm}}$

50. $\frac{25}{\sqrt{5}} = \underline{\hspace{2cm}}$

51. $\sqrt{\frac{2}{3}} = \underline{\hspace{2cm}}$

52. $\sqrt{\frac{2}{11}} = \underline{\hspace{2cm}}$

53. $\sqrt{\frac{3}{25}} = \underline{\hspace{2cm}}$

54. $\frac{\sqrt{36}}{\sqrt{5}} = \underline{\hspace{2cm}}$