

Name: _____ Date: _____



Adding and Subtracting Radicals
Practice 4

Simplify each expression.

1. $7\sqrt{7} - 2\sqrt{7}$

2. $3\sqrt{13} + 7\sqrt{13}$

3. $6\sqrt{5} - 2\sqrt{5} + 8\sqrt{5}$

4. $\sqrt{15} + 8\sqrt{15} - 12\sqrt{15}$

5. $12\sqrt{c} - 9\sqrt{c}$

6. $9\sqrt{6a} - 11\sqrt{6a} + 4\sqrt{6a}$

7. $2\sqrt{13} + 4\sqrt{2} - 5\sqrt{13} + \sqrt{2}$

8. $12\sqrt{2b} - 9\sqrt{2b}$

9. $2\sqrt{c} - 9\sqrt{c}$

10. $8\sqrt{30} - 4\sqrt{30}$

11. $2\sqrt{5} + 7\sqrt{5} - 5\sqrt{5}$

12. $7\sqrt{13x} - 14\sqrt{13x} + 2\sqrt{13x}$

Simplify each term and then add or subtract if possible.

13. $\sqrt{44} - \sqrt{11}$

14. $\sqrt{28} + \sqrt{63}$

15. $4\sqrt{3} + 2\sqrt{12}$

16. $8\sqrt{54} - 4\sqrt{6}$

17. $\sqrt{27} + \sqrt{48} + \sqrt{12}$

18. $\sqrt{72} + \sqrt{50} - \sqrt{8}$

19. $\sqrt{180} - 5\sqrt{5} + \sqrt{20}$

20. $2\sqrt{24} + 4\sqrt{54} + 5\sqrt{96}$

21. $5\sqrt{8} + 2\sqrt{20} - \sqrt{8}$

$$22. 2\sqrt{45} + 4\sqrt{20}$$

$$23. \sqrt{40} - \sqrt{10} + \sqrt{90}$$

$$24. 2\sqrt{32} + 3\sqrt{50} - 3\sqrt{18}$$

$$25. \sqrt{27} + \sqrt{18} + \sqrt{300}$$

$$26. 5\sqrt{8} + 3\sqrt{20} - \sqrt{32}$$

$$27. 3\sqrt{10} + \sqrt{75} - 2\sqrt{40} \quad 4\sqrt{12}$$

$$28. 5\sqrt{19} + 4\sqrt{28} - 8\sqrt{19} + \sqrt{63}$$