

NAME _____

Module 17 Simplifying Radical Expressions
Lesson 2 Adding and Subtracting Radicals



Simplify.

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|---|--|
| 1. $2\sqrt{3} + 3\sqrt{3}$ $5\sqrt{3}$ _____ | 2. $3\sqrt{5} - 7\sqrt{5}$ $-4\sqrt{5}$ _____ |
| 3. $-3\sqrt{2} + 3\sqrt{2}$ 0 _____ | 4. $-2\sqrt{7} - 4\sqrt{7}$ $-6\sqrt{7}$ _____ |
| 5. $\sqrt{27} + \sqrt{3}$ $4\sqrt{3}$ _____ | 6. $\sqrt{32} + \sqrt{8}$ $6\sqrt{2}$ _____ |
| 7. $\sqrt{18} - \sqrt{2}$ $2\sqrt{2}$ _____ | 8. $-\sqrt{50} + \sqrt{18}$ $-2\sqrt{2}$ _____ |
| 9. $-\sqrt{18} + \sqrt{98} + \sqrt{27}$ $4\sqrt{2} + 3\sqrt{3}$ _____ | 10. $-\sqrt{216} + \sqrt{24} + \sqrt{54}$ $-\sqrt{6}$ _____ |
| 11. $\sqrt{28} - \sqrt{112} + \sqrt{63}$ $\sqrt{7}$ _____ | 12. $\sqrt{52} + \sqrt{7} + \sqrt{-33}$ not a real number _____ |
| 13. $\sqrt{5x^2} - \sqrt{20x^2}$ $-\sqrt{5} x $ _____ | 14. $\sqrt{63t^2} - \sqrt{45t^2}$ $3\sqrt{7} t - 3\sqrt{5} t $ _____ |
| 15. $-4\sqrt{t} + 5\sqrt{t}$ \sqrt{t} _____ | 16. $\sqrt{27t} + \sqrt{12t}$ $5\sqrt{3t}$ _____ |
| 17. $2\sqrt[3]{2} + 3\sqrt[3]{2}$ $5\sqrt[3]{2}$ _____ | 18. $5\sqrt[3]{3} - 9\sqrt[3]{3}$ $-4\sqrt[3]{3}$ _____ |
| 19. $\sqrt[3]{-81x^3} + 3x\sqrt[3]{3}$ 0 _____ | 20. $\sqrt[3]{16x^3} + \sqrt[3]{54x^3}$ $5x\sqrt[3]{2}$ _____ |

