

Math 8 Honors 2026
Ch4 Add/Subtract Radicals

Name _____

Date _____

Simplify.

1. $10\sqrt{6} + 2\sqrt{6}$

2. $7\sqrt{21} - 11\sqrt{21}$

3. $\sqrt{32} + 5\sqrt{2}$

4. $-\sqrt{54} + 7\sqrt{6}$

5. $-\sqrt{50} - \sqrt{98}$

6. $\sqrt{20} + \sqrt{45}$

7. $-2\sqrt{40} + \sqrt{90}$

8. $-\sqrt{117} - 2\sqrt{52}$

9. $\sqrt{96} + \sqrt{150}$

10. $\sqrt{80} + \sqrt{180} + \sqrt{45}$

11. $-\sqrt{50} - \sqrt{18} + \sqrt{98}$

12. $-\sqrt{90} + \sqrt{160} - \sqrt{10}$

13. $2\sqrt{15} + \sqrt{60} - 3\sqrt{15}$

14. $5\sqrt{50} + 2\sqrt{72} - 3\sqrt{18}$

15. $3\sqrt{96} + 6\sqrt{54} + 2\sqrt{150}$

16. $-8\sqrt{6} - \sqrt{10} + 6\sqrt{10}$

17. $\sqrt{24} - \sqrt{54} + \sqrt{27}$

18. $\sqrt{25} - \sqrt{45} + \sqrt{125}$

19. $\sqrt{36} + \sqrt{108} - \sqrt{81}$

20. $\sqrt{24} + 3\sqrt{28} - \sqrt{96} + 5\sqrt{27}$

21. $-\sqrt{16a^4} + \sqrt{25a^4}$

22. $\sqrt{36a^2} + \sqrt{81a^3}$

23. $\sqrt{49y^3} - y\sqrt{64y}$

24. $4y^2\sqrt{49yz} - 3y\sqrt{64y^3z}$

25. $6\sqrt{18u^4w} + u\sqrt{27u^2w}$

26. $5\sqrt{3a} - 10\sqrt{3a} + 2\sqrt{3a}$

27. $-4\sqrt{36y} + \sqrt{100y} - 8\sqrt{4y}$

28. $5\sqrt{b} - 2\sqrt{49b} - \sqrt{9b}$

Answer List

- | | | |
|--------------------------------------|--|---------------------|
| 1. $12\sqrt{6}$ | 2. $-4\sqrt{21}$ | 3. $9\sqrt{2}$ |
| 4. $4\sqrt{6}$ | 5. $-12\sqrt{2}$ | 6. $5\sqrt{5}$ |
| 7. $-\sqrt{10}$ | 8. $-7\sqrt{13}$ | 9. $9\sqrt{6}$ |
| 10. $13\sqrt{5}$ | 11. $-\sqrt{2}$ | 12. 0 |
| 13. $\sqrt{15}$ | 14. $28\sqrt{2}$ | 15. $40\sqrt{6}$ |
| 16. $5\sqrt{10} - 8\sqrt{6}$ | 17. $-\sqrt{6} + 3\sqrt{3}$ | 18. $5 + 2\sqrt{5}$ |
| 19. $6\sqrt{3} - 3$ | 20. $6\sqrt{7} - 2\sqrt{6} + 15\sqrt{3}$ | 21. a^2 |
| 22. $6a + 9a\sqrt{a}$ | 23. $-y\sqrt{y}$ | 24. $4y^2\sqrt{yz}$ |
| 25. $18u^2\sqrt{2w} + 3u^2\sqrt{3w}$ | 26. $-3\sqrt{3a}$ | 27. $-30\sqrt{y}$ |
| 28. $-12\sqrt{b}$ | | |

Catalog List

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|----------------|----------------|----------------|
| 1. ALG ME 10 | 2. ALG ME 15 | 3. ALG ME 42 |
| 4. ALG ME 43 | 5. ALG ME 45 | 6. ALG ME 47 |
| 7. ALG ME 49 | 8. ALG ME 51 | 9. ALG ME 53 |
| 10. ALG ME 67 | 11. ALG ME 71 | 12. ALG ME 73 |
| 13. ALG ME 77 | 14. ALG ME 81 | 15. ALG ME 84 |
| 16. ALG ME 88 | 17. ALG ME 91 | 18. ALG ME 93 |
| 19. ALG ME 95 | 20. ALG ME 110 | 21. ALG ME 125 |
| 22. ALG ME 129 | 23. ALG ME 131 | 24. ALG ME 133 |
| 25. ALG ME 137 | 26. ALG ME 141 | 27. ALG ME 145 |
| 28. ALG ME 147 | | |