

Math 8 Honors 2026
Ch4 Multiplying Radicals

Name _____

Date _____

Simplify.

1. $(\sqrt{14})(\sqrt{7})$

2. $(\sqrt{6})(-\sqrt{30})$

3. $(-\sqrt{10})(\sqrt{3})(-\sqrt{30})$

4. $\sqrt{7} \cdot \sqrt{5} \cdot \sqrt{35}$

5. $(\sqrt{24})(-\sqrt{2})(\sqrt{12})$

6. $-8\sqrt{108} \cdot 2\sqrt{6}$

7. $\frac{1}{3}\sqrt{72} \cdot 10\sqrt{99}$

8. $(\sqrt{3y})(\sqrt{3y})$

9. $(\sqrt{2c^9})(\sqrt{8c^5})$

10. $\sqrt{10p^3} \cdot \sqrt{10p}$

11. $\sqrt{a^3d} \cdot \sqrt{ad^7}$

12. $\sqrt{19s} \cdot \sqrt{19s^2}$

13. $\sqrt{8x} \cdot \sqrt{12x^6}$

14. $6y\sqrt{3xy^3} \cdot 2\sqrt{12xy^2}$

15. $4r\sqrt{20n^3r} \cdot r\sqrt{5nr}$

16. $\sqrt{k-3} \cdot \sqrt{k-3}$

17. $\sqrt{a-b} \cdot \sqrt{a+b}$

18. $\sqrt{w+4} \cdot \sqrt{w-4}$

19. $\sqrt{a-ab} \cdot \sqrt{a+ab}$

20. $\sqrt{12u-4} \cdot \sqrt{12u-4}$

Answer List

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|-----------------------|------------------------|-----------------------|
| 1. $7\sqrt{2}$ | 2. $-6\sqrt{5}$ | 3. 30 |
| 4. 35 | 5. -24 | 6. $-288\sqrt{2}$ |
| 7. $60\sqrt{22}$ | 8. $3y$ | 9. $4c^7$ |
| 10. $10p^2$ | 11. a^2d^4 | 12. $19s\sqrt{s}$ |
| 13. $4x^3\sqrt{6x}$ | 14. $72xy^2\sqrt{y}$ | 15. $40r^3n^2$ |
| 16. $k - 3$ | 17. $\sqrt{a^2 - b^2}$ | 18. $\sqrt{w^2 - 16}$ |
| 19. $a\sqrt{1 - b^2}$ | 20. $4(3u - 1)$ | |

Catalog List

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|----------------|----------------|----------------|
| 1. ALG MC 21 | 2. ALG MC 23 | 3. ALG MC 37 |
| 4. ALG MC 39 | 5. ALG MC 40 | 6. ALG MC 54 |
| 7. ALG MC 56 | 8. ALG MC 78 | 9. ALG MC 85 |
| 10. ALG MC 87 | 11. ALG MC 89 | 12. ALG MC 115 |
| 13. ALG MC 119 | 14. ALG MC 139 | 15. ALG MC 140 |
| 16. ALG MC 146 | 17. ALG MC 147 | 18. ALG MC 148 |
| 19. ALG MC 150 | 20. ALG MC 151 | |