

Simplifying Radicals – Identification of prime factors

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|---|--|--|--|
| $\sqrt{3696} =$ | $\sqrt{3600} =$ | $\sqrt{576} =$ | $\sqrt{25600} =$ |
| 1. $\sqrt{2^4 \cdot 3 \cdot 7 \cdot 11} =$
$2^2 \sqrt{3 \cdot 7 \cdot 11}$ | 2. $\sqrt{2^4 \cdot 3^2 \cdot 5^2} =$
$2^2 \cdot 3 \cdot 5$ | 3. $\sqrt{2^6 \cdot 3^2} =$
$2^3 \cdot 3$ | 4. $\sqrt{2^{10} \cdot 5^2} =$
$2^5 \cdot 5$ |
| $\sqrt{140625} =$ | $\sqrt{518400} =$ | $\sqrt{17424} =$ | $\sqrt{676} =$ |
| 5. $\sqrt{3^2 \cdot 5^6} =$
$3 \cdot 5^3$ | 6. $\sqrt{2^8 \cdot 3^4 \cdot 5^2} =$
$2^4 \cdot 3^2 \cdot 5$ | 7. $\sqrt{2^4 \cdot 3^2 \cdot 11^2} =$
$2^2 \cdot 3 \cdot 11$ | 8. $\sqrt{2^2 \cdot 13^2} =$
$2 \cdot 13$ |
| $\sqrt{729} =$ | $\sqrt{1024} =$ | $\sqrt{8100} =$ | $\sqrt{2025} =$ |
| 9. $\sqrt{3^6} =$
3^3 | 10. $\sqrt{2^{10}} =$
2^5 | 11. $\sqrt{2^2 \cdot 3^4 \cdot 5^2} =$
$2 \cdot 3^2 \cdot 5$ | 12. $\sqrt{3^4 \cdot 5^2} =$
$3^2 \cdot 5$ |
| $\sqrt{7744} =$ | $\sqrt{1156} =$ | $\sqrt{10000} =$ | $\sqrt{11025} =$ |
| 13. $\sqrt{2^6 \cdot 11^2} =$
$2^3 \cdot 11$ | 14. $\sqrt{2^2 \cdot 17^2} =$
$2 \cdot 17$ | 15. $\sqrt{2^4 \cdot 5^4} =$
$2^2 \cdot 5^2$ | 16. $\sqrt{3^2 \cdot 5^2 \cdot 7^2} =$
$3 \cdot 5 \cdot 7$ |
| $\sqrt{3675} =$ | $\sqrt{12348} =$ | $\sqrt{2376} =$ | $\sqrt{5733} =$ |
| 17. $\sqrt{3 \cdot 5^2 \cdot 7^2} =$
$5 \cdot 7 \cdot \sqrt{3}$ | 18. $\sqrt{2^2 \cdot 3^2 \cdot 7^3} =$
$2 \cdot 3 \cdot 7 \cdot \sqrt{7}$ | 19. $\sqrt{2^3 \cdot 3^3 \cdot 11} =$
$2 \cdot 3 \cdot \sqrt{2 \cdot 3 \cdot 11}$ | 20. $\sqrt{3^2 \cdot 7^2 \cdot 13} =$
$3 \cdot 7 \cdot \sqrt{13}$ |
| $\sqrt{4675} =$ | $\sqrt{33516} =$ | $\sqrt{16560} =$ | $\sqrt{54432} =$ |
| 21. $\sqrt{5^2 \cdot 11 \cdot 17} =$
$5 \cdot \sqrt{11 \cdot 17}$ | 22. $\sqrt{2^2 \cdot 3^2 \cdot 7^2 \cdot 19} =$
$2 \cdot 3 \cdot 7 \cdot \sqrt{19}$ | 23. $\sqrt{2^4 \cdot 3^2 \cdot 5 \cdot 23} =$
$2^2 \cdot 3 \cdot \sqrt{5 \cdot 23}$ | 24. $\sqrt{2^5 \cdot 3^5 \cdot 7} =$
$2^2 \cdot 3^2 \cdot \sqrt{2 \cdot 3 \cdot 7}$ |