



Math worksheet on 'Radicals - Adding and Subtracting (Values Only) (Level 4)'. Part of a broader unit on 'Radicals - Addition and Subtraction Intro'

Learn online:

app.mobius.academy/math/units/radicals_addition_and_subtraction_intro/

1 Simplify, then add or subtract the radical expressions

$$\sqrt{20} - \sqrt{45} + \sqrt{20}$$

- | | | | |
|----------|----------------------------|----------|-------------------------------------|
| a | $\sqrt{5} - 2\sqrt{5}$ | b | $4\sqrt{5} - 2\sqrt{5}$ |
| c | $-1\sqrt{5} - 2\sqrt{5}$ | d | $\sqrt{5} - 6\sqrt{3} + \sqrt{8}$ |
| e | $1 - \sqrt{5} + 4\sqrt{2}$ | f | $3\sqrt{6} - 6\sqrt{2} + 5\sqrt{4}$ |

2 Simplify, then add or subtract the radical expressions

$$\sqrt{8} - \sqrt{32} + \sqrt{8}$$

- | | | | |
|----------|--------------------------|----------|------------------------------------|
| a | $-2\sqrt{2} - 2\sqrt{2}$ | b | $2\sqrt{5} - 5\sqrt{2} + \sqrt{3}$ |
| c | $\sqrt{2} - 2\sqrt{2}$ | d | $-2 - 2\sqrt{2}$ |
| e | $2\sqrt{2} - 2\sqrt{2}$ | f | $4\sqrt{2} - 2\sqrt{2}$ |

3 Simplify, then add or subtract the radical expressions

$$\sqrt[3]{704} + \sqrt[3]{88} + \sqrt[3]{704}$$

- | | | | |
|----------|---|----------|---------------------------------|
| a | $6\sqrt[3]{11} + 4\sqrt[3]{11}$ | b | $2\sqrt[3]{7} + \sqrt[3]{10}$ |
| c | $3\sqrt[3]{9} + \sqrt[3]{11} + \sqrt[3]{8}$ | d | $2\sqrt[3]{11} + 4\sqrt[3]{11}$ |
| e | $6\sqrt[3]{3} + 4\sqrt[3]{11}$ | f | $6 + 4\sqrt[3]{11}$ |

4 Simplify, then add or subtract the radical expressions

$$\sqrt[3]{189} - \sqrt[3]{448} - \sqrt[3]{189}$$

- | | | | |
|----------|---|----------|-------------------------------|
| a | $-1\sqrt[3]{7} - 3\sqrt[3]{7}$ | b | $-1 - 3\sqrt[3]{7}$ |
| c | $6\sqrt[3]{5} - \sqrt[3]{9} - \sqrt[3]{10}$ | d | $5\sqrt[3]{7} - 3\sqrt[3]{7}$ |
| e | $\sqrt[3]{7} - 3\sqrt[3]{7}$ | f | $5\sqrt[3]{8}$ |

5 Simplify, then add or subtract the radical expressions

$$\sqrt[3]{128} - \sqrt[3]{54} + \sqrt[3]{16}$$

- | | | | |
|----------|------------------------------|----------|----------------------------------|
| a | $\sqrt[3]{2} - 2\sqrt[3]{2}$ | b | $-2 - 2\sqrt[3]{2}$ |
| c | $-1 - 4$ | d | $2\sqrt[3]{5} - 1 + \sqrt[3]{3}$ |
| e | $1 - 2\sqrt[3]{2}$ | f | $5\sqrt[3]{2} - 2\sqrt[3]{2}$ |

6 Simplify, then add or subtract the radical expressions

$$\sqrt[3]{88} + \sqrt[3]{297} - \sqrt[3]{704}$$

- | | | | |
|----------|----------------------------------|----------|--------------------------------|
| a | $5\sqrt[3]{11} + 4\sqrt[3]{11}$ | b | $5 + 4\sqrt[3]{11}$ |
| c | $10\sqrt[3]{12} + 7\sqrt[3]{11}$ | d | $5\sqrt[3]{3} + 4\sqrt[3]{11}$ |
| e | $4\sqrt[3]{11} + 4\sqrt[3]{11}$ | f | $\sqrt[3]{11} + 4\sqrt[3]{11}$ |

7 Simplify, then add or subtract the radical expressions

$$\sqrt[3]{189} + \sqrt[3]{189} - \sqrt[3]{56}$$

- | | | | |
|----------|---|----------|-------------------------------|
| a | $4\sqrt[3]{9} + 5\sqrt[3]{10} - 2\sqrt[3]{7}$ | b | $5\sqrt[3]{7} + 2\sqrt[3]{7}$ |
| c | $2\sqrt[3]{9} + \sqrt[3]{7} - \sqrt[3]{4}$ | d | $\sqrt[3]{7} + 2\sqrt[3]{7}$ |
| e | $6\sqrt[3]{7} + 2\sqrt[3]{7}$ | f | $3\sqrt[3]{7} + 2\sqrt[3]{7}$ |