



Math worksheet on 'Radicals - Adding and Subtracting - Simplification (Values Only) (Level 3)'.
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 the radical expressions to prepare for adding or subtracting

$$\sqrt{48} - \sqrt{75}$$

| | | | |
|----------|-------------------------|----------|-------------------------|
| a | $\sqrt{6} - 8\sqrt{6}$ | b | $7\sqrt{2} - 5\sqrt{3}$ |
| c | $4\sqrt{6} - 5\sqrt{3}$ | d | $4\sqrt{3} - 5\sqrt{3}$ |
| e | $4\sqrt{3} - 5\sqrt{4}$ | f | $\sqrt{5} - 8\sqrt{4}$ |

2 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{112} - \sqrt{63}$$

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

3 Simplify the radical expressions to prepare for adding or subtracting

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

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

4 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{80} - \sqrt{45}$$

| | | | |
|----------|-------------------------|----------|-------------------------|
| a | $4\sqrt{5} - 3\sqrt{5}$ | b | $4\sqrt{5} - 5\sqrt{3}$ |
| c | $\sqrt{6} - 3\sqrt{5}$ | d | $6\sqrt{7} - \sqrt{5}$ |
| e | $4\sqrt{5} - \sqrt{5}$ | f | $2 - 3\sqrt{5}$ |

5 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{28} + \sqrt{63}$$

| | | | |
|----------|-------------------------|----------|-------------------------|
| a | $2\sqrt{7} + 3\sqrt{7}$ | b | $2\sqrt{7} + \sqrt{4}$ |
| c | $2\sqrt{7} + 4\sqrt{5}$ | d | $2\sqrt{4} + 3\sqrt{7}$ |
| e | $\sqrt{8} + 3\sqrt{7}$ | f | $\sqrt{4} + 3\sqrt{8}$ |

6 Simplify the radical expressions to prepare for adding or subtracting

$$\sqrt{48} - \sqrt{12}$$

| | | | |
|----------|-------------------------|----------|-------------------------|
| a | $4\sqrt{3} - 5\sqrt{5}$ | b | $4\sqrt{3} - \sqrt{5}$ |
| c | $4\sqrt{3} - 5\sqrt{3}$ | d | $4\sqrt{3} - 2\sqrt{3}$ |
| e | $7\sqrt{6} - 2\sqrt{3}$ | f | $4\sqrt{3} - 1$ |

7 Simplify the radical expressions to prepare for adding or subtracting

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

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