

Adding and Subtracting Radical Expressions

CLASS EXAMPLES: Simplify.

① Combine like terms

② Simplify to combine

1)  $2\sqrt{5} + 3\sqrt{5}$   
 $5\sqrt{5}$   
 $5\sqrt{5}$

2)  $2\sqrt{3} + 2\sqrt{3} - 3\sqrt{2}$   
 $4\sqrt{3} - 3\sqrt{2}$   
 $4\sqrt{3} - 3\sqrt{2}$

3)  $\sqrt{128} + \sqrt{8}$   
 $10\sqrt{2}$   
 $8\sqrt{2} + 2\sqrt{2}$

4)  $2\sqrt{5} - 3\sqrt{12} + 4\sqrt{45}$   
 $14\sqrt{5} - 6\sqrt{3} + 12\sqrt{5}$   
 $24\sqrt{5} - 6\sqrt{3}$

Simplify.

5)  $2\sqrt{2} + 2\sqrt{2}$   
 $4\sqrt{2}$

6)  $3\sqrt{3} - \sqrt{3}$   
 $2\sqrt{3}$

7)  $2\sqrt{3} + 2\sqrt{6} + 2\sqrt{3}$   
 $4\sqrt{3} + 2\sqrt{6}$

8)  $2\sqrt{3} - 3\sqrt{5} - \sqrt{3}$   
 $\sqrt{3} - 3\sqrt{5}$

9)  $\sqrt{50} + \sqrt{8}$   
 $7\sqrt{2}$

10)  $\sqrt{32} + \sqrt{18}$   
 $7\sqrt{2}$

5)  $3\sqrt{5} - 2\sqrt{2}$

9)  $1\sqrt{7} - \sqrt{5}$

11)  $-2\sqrt{200} - \sqrt{72}$   
 $-26\sqrt{2}$

12)  $-\sqrt{32} - 3\sqrt{8}$   
 $-10\sqrt{2}$

7)  $2\sqrt{5} - 2\sqrt{6} + 2\sqrt{5}$

7)  $1\sqrt{5} - \sqrt{6} - \sqrt{5}$