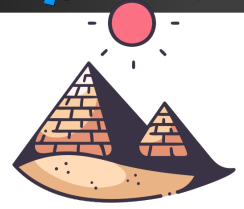


Name: \_\_\_\_\_



## Adding and Subtracting Radicals

**Directions:** Simplify each of the following.

1.)  $8\sqrt{2} - 3\sqrt{2} =$  \_\_\_\_\_

9.)  $2\sqrt{17} + 8\sqrt{17} =$  \_\_\_\_\_

2.)  $\sqrt{7} + 5\sqrt{7} =$  \_\_\_\_\_

10.)  $2\sqrt{3} + \sqrt{12} =$  \_\_\_\_\_

3.)  $11\sqrt{5} - 4\sqrt{5} =$  \_\_\_\_\_

11.)  $5\sqrt{2} + \sqrt{18} =$  \_\_\_\_\_

4.)  $6\sqrt{3} - 4\sqrt{3} =$  \_\_\_\_\_

12.)  $\sqrt{20} - \sqrt{5} =$  \_\_\_\_\_

5.)  $18\sqrt{6} - 9\sqrt{6} =$  \_\_\_\_\_

13.)  $\sqrt{98} - 3\sqrt{2} =$  \_\_\_\_\_

6.)  $\sqrt{13} + 2\sqrt{13} =$  \_\_\_\_\_

14.)  $12\sqrt{6} - \sqrt{54} =$  \_\_\_\_\_

7.)  $3\sqrt{13} + 8\sqrt{13} =$  \_\_\_\_\_

15.)  $3\sqrt{3} - \sqrt{27} =$  \_\_\_\_\_

8.)  $15\sqrt{2} - 8\sqrt{2} =$  \_\_\_\_\_

16.)  $\sqrt{72} + \sqrt{50} =$  \_\_\_\_\_

## ANSWER KEY

1.)  $8\sqrt{2} - 3\sqrt{2} = 5\sqrt{2}$

9.)  $2\sqrt{17} + 8\sqrt{17} = 10\sqrt{17}$

2.)  $\sqrt{7} + 5\sqrt{7} = 6\sqrt{7}$

10.)  $2\sqrt{3} + \sqrt{12} = 4\sqrt{3}$

3.)  $11\sqrt{5} - 4\sqrt{5} = 7\sqrt{5}$

11.)  $5\sqrt{2} + \sqrt{18} = 8\sqrt{2}$

4.)  $6\sqrt{3} - 4\sqrt{3} = 2\sqrt{3}$

12.)  $\sqrt{20} - \sqrt{5} = \sqrt{5}$

5.)  $18\sqrt{6} - 9\sqrt{6} = 9\sqrt{6}$

13.)  $\sqrt{98} - 3\sqrt{2} = 4\sqrt{2}$

6.)  $\sqrt{13} + 2\sqrt{13} = 3\sqrt{13}$

14.)  $12\sqrt{6} - \sqrt{54} = 9\sqrt{6}$

7.)  $3\sqrt{13} + 8\sqrt{13} = 11\sqrt{13}$

15.)  $3\sqrt{3} - \sqrt{27} = 0$

8.)  $15\sqrt{2} - 8\sqrt{2} = 7\sqrt{2}$

16.)  $\sqrt{72} + \sqrt{50} = 11\sqrt{2}$