

This worksheet will cover the following:

Objective 1: Simplifying Radicals by Using the Multiplication Property of Radicals

Objective 2: Multiplication Property of Radicals/Special Case Products

Objective 3: Rationalizing the Denominator

---

Objective 1: Simplifying Radicals by Using the Multiplication Property of Radicals

Simplify the radicals.

1.  $\sqrt{63}$

6.  $\sqrt{80}$

2.  $\sqrt{20}$

7.  $-6\sqrt{75}$

3.  $\sqrt{50}$

8.  $\frac{2\sqrt{27}}{3}$

4.  $5\sqrt{18}$

9.  $\frac{7\sqrt{24}}{2}$

5.  $2\sqrt{24}$

---

Objective 2: Multiplication Property of Radicals/Special Case Products

Multiply the radical expression.

10.  $(y + \sqrt{6})(y - \sqrt{6})$

11.  $(\sqrt{3} + x)(\sqrt{3} - x)$

**Objective 3: Rationalizing the Denominator**

For the following, rationalize the denominator.

12.  $-\frac{1}{\sqrt{7}}$

13.  $\frac{6}{\sqrt{8}}$

14.  $\frac{2}{\sqrt{48}}$

15.  $\frac{4}{\sqrt{2}+3}$

16.  $\frac{6}{4-\sqrt{3}}$