

Simplifying Square Roots - Set 1

SSR 1

Instructions: Simplify these square roots.

1 $\sqrt{75}$

$75 = 3 \cdot 25 = 3 \cdot 5 \cdot 5$

$\sqrt{3 \cdot 5 \cdot 5}$

$5\sqrt{3}$

2 $\sqrt{25}$

3 $\sqrt{50}$

4 $\sqrt{100}$

5 $\sqrt{300}$

6 $\sqrt{400}$

7 $\sqrt{9}$

8 $\sqrt{27}$

9 $\sqrt{54}$

10 $\sqrt{12}$

11 $\sqrt{24}$

12 $\sqrt{48}$

Simplifying Square Roots - Set 2

SSR 2

Instructions: Simplify these square roots.

1 $\sqrt{40}$

$40 = 4 \cdot 10 = 2 \cdot 2 \cdot 2 \cdot 5$

$\sqrt{2 \cdot 2 \cdot 2 \cdot 5}$

$2\sqrt{10}$

2 $\sqrt{80}$

3 $\sqrt{90}$

4 $\sqrt{44}$

5 $\sqrt{125}$

6 $\sqrt{63}$

7 $\sqrt{28}$

8 $\sqrt{60}$

9 $\sqrt{88}$

10 $\sqrt{45}$

11 $\sqrt{120}$

12 $\sqrt{18}$

“Rationalizing the Denominator”

SSR 3

Instructions: Use the procedure you learned in the video to “rationalize” these denominators. In other words, re-write the fractions so that they don’t have a root in the denominator.

1 $\frac{1}{2\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}}$

$$\frac{\sqrt{3}}{2 \cdot 3} = \frac{\sqrt{3}}{6}$$

2 $\frac{2}{\sqrt{2}}$

3 $\frac{2}{\sqrt{5}}$

4 $\frac{7}{3\sqrt{3}}$

5 $\frac{1}{2\sqrt{6}}$

6 $\frac{1}{\sqrt{3}}$

7 $\frac{\sqrt{5}}{\sqrt{2}}$

8 $\frac{4}{3\sqrt{7}}$

9 $\frac{1}{2\sqrt{8}}$

10 $\frac{\sqrt{6}}{3\sqrt{2}}$