

Simplifying Radicals

Procedure:

1. Rewrite the radicand as a product of a perfect square and some other number.
2. Take the square root of the perfect square.
3. Leave the other number in the radical.

Example: Simplify $\sqrt{45}$

$$\begin{aligned}\sqrt{45} &= \sqrt{9 \times 5} \\ &= 3\sqrt{5}.\end{aligned}$$

Perfect Squares

$1^2 = 1$	$6^2 = 36$
$2^2 = 4$	$7^2 = 49$
$3^2 = 9$	$8^2 = 64$
$4^2 = 16$	$9^2 = 81$
$5^2 = 25$	$10^2 = 100$

Simplify.

1. $\sqrt{64}$

2. $\sqrt{40}$

3. $\sqrt{54}$

4. $\sqrt{36}$

5. $\sqrt{50}$

6. $\sqrt{64}$

7. $\sqrt{150}$

8. $\sqrt{100}$

9. $\sqrt{16}$

10. $\sqrt{32}$

11. $\sqrt{80}$

12. $\sqrt{128}$

13. $\sqrt{300}$

14. $\sqrt{24}$

15. $\sqrt{27}$

