Simplify Radical Expressions—Part 2
Rationalize the Denominator

Rationalize the denominator means to eliminate any radicals in the denominator.

A process to follow is:

1. **Reduce** the fraction, if possible.
2. **Simplify** the radicals
3. **Rationalize** by multiplying by "what you need".
4. **Reduce** again if necessary.

Simplify the following:

SQUARE ROOTS:

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

2. $\frac{\sqrt{50}}{\sqrt{32}}$

3. $\frac{3}{\sqrt{2y}}$

4. $\frac{\sqrt{5x}}{\sqrt{20x^2}}$

5. $\sqrt{\frac{1}{12x^3}}$

6. $\sqrt{\frac{49x^3}{9y^3}}$

CUBE ROOTS:

7. $\sqrt[3]{\frac{5}{2y}}$

8. $\sqrt[3]{\frac{5}{9y}}$

9. $\sqrt[3]{\frac{2y}{9x^5}}$