

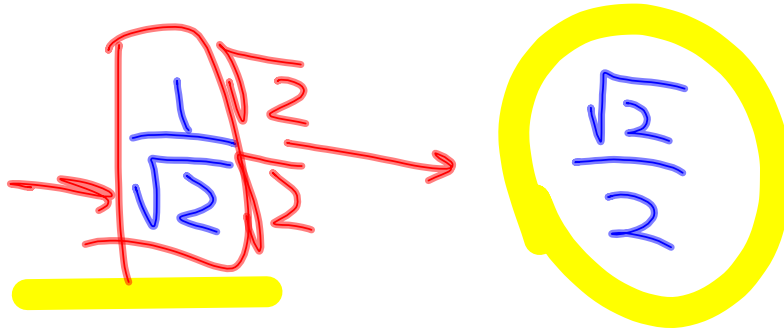
How do we rationalize the denominators?

Do Now Evaluate.

$$1) \sqrt{3} \cdot \sqrt{3} = 3$$

$$2) (4 + \sqrt{5})(4 - \sqrt{5}) = 16 - 4\sqrt{5} + 4\sqrt{5} - 5 \\ = 16 - 5 = 11$$

$$\frac{1}{1.414} = .707 \quad \frac{1.414}{2} = .707$$



$$\frac{1}{\sqrt{2}} \rightarrow \frac{\sqrt{2}}{2}$$

rationalize the denominators.

$$1) \frac{5\sqrt{3}}{\sqrt{3}\sqrt{3}} = \frac{5\sqrt{3}}{3} \quad 2) \frac{\sqrt{3}\sqrt{2}}{\sqrt{2}\sqrt{2}} = \frac{\sqrt{6}}{2}$$

$$3) \frac{1}{(2-\sqrt{3})(2+\sqrt{3})} = \frac{2+\sqrt{3}}{4 - \cancel{2\sqrt{3}} - \cancel{2\sqrt{3}} - 3} = \frac{2+\sqrt{3}}{1}$$

$$4) \frac{2\sqrt{5}\sqrt{3}}{\sqrt{3}\sqrt{3}} = \frac{2\sqrt{15}}{3}$$

$$6) \frac{3(3-\sqrt{2})}{(3+\sqrt{2})(3-\sqrt{2})} = \frac{9-3\sqrt{2}}{9 - \cancel{3\sqrt{2}} + \cancel{3\sqrt{2}} - 2} = \frac{9-3\sqrt{2}}{7}$$

conjugate pair

$$7) \frac{2\sqrt{6}}{\sqrt{3}}$$

$$8) \frac{6+\sqrt{3}}{\sqrt{2}}$$

$$9) \frac{1}{5-\sqrt{2}}$$

$$10) \frac{2-\sqrt{3}}{2+\sqrt{3}}$$