

Rationalizing the Denominator

Simplify.

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

$$2) \frac{5\sqrt{4}}{4\sqrt{3}}$$
$$\frac{5\sqrt{3}}{6}$$

$$3) \frac{3\sqrt{15}}{5\sqrt{10}}$$
$$\frac{3\sqrt{6}}{10}$$

$$4) \frac{3\sqrt{2}}{4\sqrt{5}}$$
$$\frac{3\sqrt{10}}{20}$$

$$5) -\frac{5}{\sqrt{3} + \sqrt{2}}$$
$$\frac{-5\sqrt{3} + 5\sqrt{2}}{1}$$

$$6) \frac{3}{\sqrt{2} - 4}$$
$$\frac{-3\sqrt{2} - 12}{14}$$

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

$$8) \frac{3}{4 + 5\sqrt{2}}$$
$$\frac{-12 + 15\sqrt{2}}{34}$$