Rationalizing Denominators

Rationalize each denominator. Simplify the resulting fraction when possible.

$\dfrac{1}{\sqrt{2}} =$

$\dfrac{6}{\sqrt{2}} =$

$\dfrac{2}{\sqrt{3}} =$

$\dfrac{1}{3\sqrt{12}} =$

$\dfrac{15}{\sqrt{5}} =$

$\dfrac{12}{\sqrt{6}} =$

$\dfrac{42}{\sqrt{7}} =$

$\dfrac{8}{3\sqrt{2}} =$

$\dfrac{2}{\sqrt{11}} =$

$\dfrac{3}{2\sqrt{7}} =$

Rationalizing Denominators

Rationalize each denominator. Simplify the resulting fraction when possible.

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

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

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

$$\frac{1}{3\sqrt{12}} = \frac{\sqrt{12}}{36}$$

$$\frac{15}{\sqrt{5}} = 3\sqrt{5}$$

$$\frac{12}{\sqrt{6}} = 2\sqrt{6}$$

$$\frac{42}{\sqrt{7}} = 6\sqrt{7}$$

$$\frac{8}{3\sqrt{2}} = \frac{2\sqrt{2}}{3}$$

$$\frac{2}{\sqrt{11}} = \frac{2\sqrt{11}}{11}$$

$$\frac{3}{2\sqrt{7}} = \frac{3\sqrt{7}}{14}$$