

14.3 – Dividing Radicals

$$1. \sqrt{\frac{3}{16}} = \frac{\sqrt{3}}{\sqrt{16}} = \frac{\sqrt{3}}{4}$$

$$2. \frac{\sqrt{21}}{\sqrt{3}} = \sqrt{\frac{21}{3}} = \sqrt{7}$$

$$3. \frac{8\sqrt{48}}{4\sqrt{2}} = \frac{8}{4} \cdot \sqrt{\frac{48}{2}}$$

$= 2\sqrt{24}$

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

$= 4\sqrt{6}$

$\begin{array}{r} 2 \overline{) 24} \\ \underline{4} \\ 20 \\ \underline{40} \\ 0 \end{array}$

$$4. \frac{12}{\sqrt{2}} =$$
$$\frac{12}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{12\sqrt{2}}{2} = 6\sqrt{2}$$

$$5. \sqrt{\frac{3}{7}} = \frac{\sqrt{3}}{\sqrt{7}} \cdot \frac{\sqrt{7}}{\sqrt{7}}$$
$$= \frac{\sqrt{21}}{7}$$

$$6. \frac{\sqrt{5}}{\sqrt{11}} =$$
$$\frac{\sqrt{5}}{\sqrt{11}} \cdot \frac{\sqrt{11}}{\sqrt{11}} = \frac{\sqrt{55}}{11}$$