

Precalculus Algebra Review Worksheet #7 Radicals Selected Solutions

Express each of the following in simplest form.

$$1. \quad \sqrt{48} + \sqrt{75} = \underline{9\sqrt{3}}$$

$$\begin{aligned} \sqrt{16}\sqrt{3} + \sqrt{25}\sqrt{3} \\ 4\sqrt{3} + 5\sqrt{3} \end{aligned}$$

$$4. \quad \sqrt[3]{375} - \sqrt[3]{24} = \underline{3\sqrt[3]{3}}$$

$$\begin{aligned} \sqrt[3]{125}\sqrt[3]{3} - \sqrt[3]{8}\sqrt[3]{3} \\ 5\sqrt[3]{3} - 2\sqrt[3]{3} \end{aligned}$$

$$5. \quad \sqrt{\frac{3}{4}} + \sqrt{\frac{1}{3}} =$$

$$\frac{\sqrt{3}}{\sqrt{4}} + \frac{\sqrt{1}\sqrt{3}}{\sqrt{3}\sqrt{3}}$$

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

$$\frac{3\sqrt{3}}{6} + \frac{2\sqrt{3}}{6} = \boxed{\frac{5\sqrt{3}}{6}}$$

$$8. \quad \sqrt[3]{\frac{4}{5}} - \sqrt[3]{\frac{1}{10}} =$$

$$\frac{\sqrt[3]{4}\sqrt[3]{25}}{\sqrt[3]{5}\sqrt[3]{25}} - \frac{\sqrt[3]{1}\sqrt[3]{100}}{\sqrt[3]{10}\sqrt[3]{100}}$$

$$\frac{\sqrt[3]{100}}{5} - \frac{\sqrt[3]{100}}{10}$$

$$\frac{2\sqrt[3]{100}}{10} - \frac{\sqrt[3]{100}}{10} = \boxed{\frac{\sqrt[3]{100}}{10}}$$