Algebra II

6-3

Sums of Radicals

Simplify.

$\sqrt{2} + \sqrt{2} = 2\sqrt{2}$

$\sqrt{2} + \sqrt{3} =$ can't do (as is)

$\sqrt{2} + \sqrt[3]{2} =$ can't do (as is)

Simplify.

1) $\sqrt{50} + \sqrt{18}$

$\sqrt{25 \cdot 2} + \sqrt{9 \cdot 2}$

$5\sqrt{2} + 3\sqrt{2}$

$8\sqrt{2}$

17) $\sqrt[3]{4} + \sqrt[3]{\frac{1}{2}}$

$\sqrt[3]{4} + \frac{\sqrt[3]{1}\sqrt[3]{4}}{\sqrt[3]{2}\sqrt[3]{4}}$

$\sqrt[3]{4} + \frac{\sqrt[3]{4}}{\sqrt[3]{8}} = \frac{2\sqrt[3]{4}}{2} + \frac{\sqrt[3]{4}}{2}$

$\frac{2\sqrt[3]{4} + \sqrt[3]{4}}{2} = \frac{3\sqrt[3]{4}}{2}$

25) $\frac{\sqrt{6} - \sqrt{24}}{\sqrt{2}}$

$\sqrt{3} - \sqrt{12}$

$\sqrt{3} - \sqrt{4 \cdot 3}$

$1\sqrt{3} - 2\sqrt{3}$

$-\sqrt{3}$

31) $\sqrt[3]{5}\left(\sqrt[3]{200} - \sqrt[3]{16}\right)$

$\sqrt[3]{1000} - \sqrt[3]{80}$

$10 - \sqrt[3]{8 \cdot 10}$

$10 - 2\sqrt[3]{10}$

37) $\sqrt{p^3 r} + \sqrt{pr^3}$

$\sqrt{p^2 pr} + \sqrt{prr^2}$

$|p|\sqrt{pr} + |r|\sqrt{pr}$

$(|p| + |r|)\sqrt{pr}$

Pg 272

2-44 even