p. 399 evens

#2 cannot combine

#4 $7\sqrt{3}$

#6 $75+34\sqrt{5}$

#8 -166

#12 $4\sqrt[3]{3}$

#14 cannot combine

#6 $(5+2\sqrt{5})(7+4\sqrt{5})$

$35+20\sqrt{5}+14\sqrt{5}+8\cdot 5$

$75+34\sqrt{5}$

#21 $(2+\sqrt{7})(1+3\sqrt{7})$

$2+6\sqrt{7}+\sqrt{7}+3\cdot 7$

$23+7\sqrt{7}$

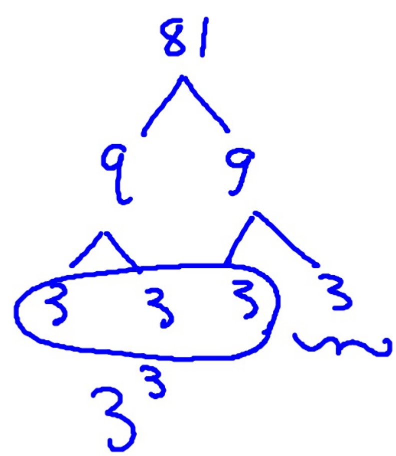
#26-29 all radicals should go away.

Example of $\sqrt[3]{}$

$\sqrt[3]{81}$

$=\sqrt[3]{3^3}\cdot\sqrt[3]{3}$

$3\sqrt[3]{3}$



Example

$$14\sqrt[3]{x^6}$$

$$14 \cdot x^2$$

Topic: rationalizing a binomial radical in denominator

technique: multiply the expression by the conjugate of the denominator over itself.

Ex: #32 p 400

$$\frac{3+\sqrt{8}}{2-2\sqrt{8}} \cdot \frac{2+2\sqrt{8}}{2+2\sqrt{8}}$$

$$\frac{6+6\sqrt{8}+2\sqrt{8}+16}{4+\cancel{4\sqrt{8}}-\cancel{4\sqrt{8}}-32} = \frac{22+16\sqrt{2}}{-28}$$

$$\frac{\cancel{2}(11+8\sqrt{2})}{\cancel{2}(-14)}$$

$$-\frac{11+8\sqrt{2}}{14}$$