

$$\sqrt{6} \cdot \sqrt{8} = \sqrt{48}$$

$$\sqrt{3}\sqrt{2} \sqrt{2}\sqrt{4}$$

$$\sqrt{4} \downarrow 2$$

$$4\sqrt{3}$$

$$\sqrt{7} \cdot \sqrt{7} = \sqrt{49} = 7$$

$$\sqrt{3} \cdot \sqrt{3} = \sqrt{9} = 3$$

$$\sqrt{10} \cdot \sqrt{10} = \sqrt{100} = 10$$

$$(5\sqrt{5})(3\sqrt{2})$$

$$15\sqrt{10}$$

$$(3\sqrt{10})(4\sqrt{2})$$

$$12\sqrt{20}$$

$$12\sqrt{4}\sqrt{5}$$

$$12 \cdot 2\sqrt{5}$$

$$24\sqrt{5}$$

$$(3\sqrt{10})(4\sqrt{2})$$

$$(3\sqrt{5}\sqrt{2})(4\sqrt{2})$$

$$3 \cdot 4 \sqrt{4} \sqrt{5}$$

$$3 \cdot 4 \cdot 2$$

$$24\sqrt{5}$$

4 Simplify.

a. $(3\sqrt{5} - 2\sqrt{3})(2 + \sqrt{3})$

$$6\sqrt{5} + 3\sqrt{15} - 4\sqrt{3} - 2\sqrt{9}$$

$-2(3)$

$$6\sqrt{5} + 3\sqrt{15} - 4\sqrt{3} - 6$$

b. $(5\sqrt{3} - 6)(5\sqrt{3} + 6)$

$$25\sqrt{9} + 30\sqrt{3} - 30\sqrt{3} - 36$$

$25(3)$

$$75 - 36$$

$$39$$

Conjugates

$x-2$	$x+2$
$3x+4$	$3x-4$

$$\frac{5}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{5\sqrt{3}}{\sqrt{9}} = \left(\frac{5\sqrt{3}}{3} \right)$$

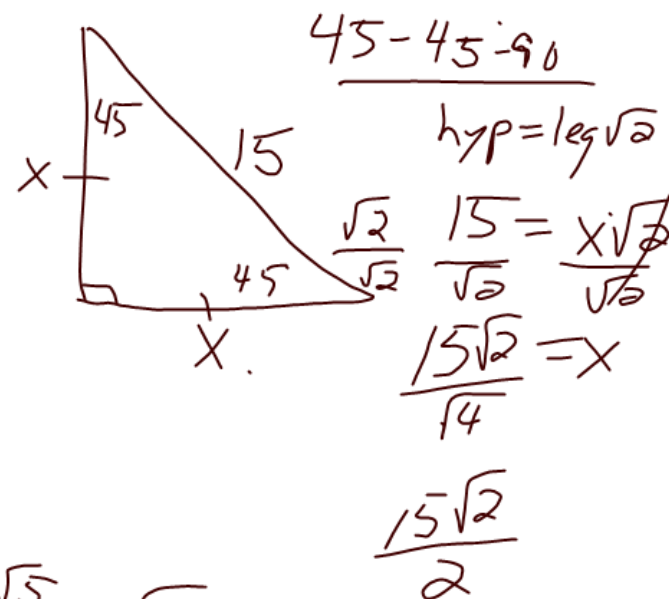
$$\sqrt{\frac{13}{2}} = \frac{\sqrt{13}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{26}}{\sqrt{4}} = \left(\frac{\sqrt{26}}{2} \right)$$

$$\sqrt{\frac{10}{2}} = \frac{\sqrt{10}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{20}}{\sqrt{4}} = \frac{\sqrt{4\sqrt{5}}}{2} = \frac{2\sqrt{5}}{2} = \sqrt{5}$$

$$\sqrt{\frac{10}{2}} = (\sqrt{5})$$

$$\frac{\sqrt{8}}{\sqrt{2}} = \sqrt{\frac{8}{2}} = \sqrt{4} = 2$$

$$\frac{\sqrt{8}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{16}}{\sqrt{4}} = \frac{4}{2} = 2$$



5 Simplify $\frac{1 - \sqrt{3}}{5 + \sqrt{3}} \cdot \frac{5 - \sqrt{3}}{5 - \sqrt{3}}$

$$= \frac{5 - \sqrt{3} - 5\sqrt{3} + \sqrt{9}^{+3}}{25 - \cancel{5\sqrt{3}} + \cancel{5\sqrt{3}} - \sqrt{9}^{-3}}$$

$$= \frac{8 - 6\sqrt{3} \div 2}{22 \div 2} = \frac{4 - 3\sqrt{3}}{11}$$

p. 413-414

18-19, 22-23, 34-36, 38-46

~~48~~, 49, 52-53, 55, 57,

60, 62-63,

72-79 (no calculator)