2.10 Combined Operations on Radicals

Review Distributive Law (FOIL)

a) $2x(3x + 5y)$

$6x^2 + 10xy$

b) $(x - 3)(x + 4)$

$x^2 + 4x - 3x - 12$

$x^2 + 1x - 12$

Feb 18-6:44 AM

a) $2\sqrt{3}(4\sqrt{5} - 3\sqrt{7})$

$8\sqrt{15} - 6\sqrt{21}$

b) $(3\sqrt{2} - 4\sqrt{5})(1\sqrt{2} + 4\sqrt{5})$

$3\cdot\sqrt{4} + 12\sqrt{10} - 1\sqrt{10} - 4\cdot\sqrt{25}$

$3(2)$ $-4\cdot(5)$

$6 + 11\sqrt{10} - 20$

$-14 + 11\sqrt{10}$

c) $(2\sqrt{3} + 1)^2$

$(2\sqrt{3} + 1)(2\sqrt{3} + 1)$

$4\sqrt{9} + 2\sqrt{3} + 2\sqrt{3} + 1$

$4\cdot(3) + 4\sqrt{3} + 1$

$13 + 4\sqrt{3}$

Feb 18-6:46 AM

Rationalize the denominator

a) $\frac{\sqrt{5}-7}{\sqrt{6}} \times \frac{\sqrt{6}}{\sqrt{6}}$

b) $\frac{2\sqrt{3}}{\sqrt{5}} \times \frac{\sqrt{5}}{\sqrt{5}}$

Remove all radicals from the denominator

a) $\frac{\sqrt{30}-7\sqrt{6}}{6}$

b) $\frac{2\sqrt{15}}{5}$

Feb 18-6:49 AM

Binomial Denominators (Conjugate)

a) $\frac{9}{\sqrt{11}-\sqrt{8}}$

b) $\frac{\sqrt{7}-\sqrt{3}}{\sqrt{5}+\sqrt{3}}$

c) $\frac{2\sqrt{2}+3}{4\sqrt{2}-5}$

Feb 18-6:50 AM

Common Denominators

$a) \frac{1}{\sqrt{2}} - \frac{1}{\sqrt{6}}$

$b) \frac{2}{\sqrt{7}} - \frac{3}{\sqrt{5}}$

Feb 18-6:53 AM

Assignment: Pg. 139
2, 5, 8, 13 - 15, 17
ALL Odds

Feb 18-6:55 AM