

September 16, 2015

$$\left(\frac{abc}{a^{-1/2}b^{1/4}c^{1/2}}\right)^{-2} = \left(\frac{a^{-1/2}b^{1/4}c^{1/2}}{abc}\right)^2$$

$$= \frac{a^{-1}b^{1/2}c}{a^2b^2c^2}$$

$$= \frac{b^{1/2} \cdot c^{-1-2}}{a^2 \cdot a}$$

$$= \frac{b^{-3/2} \cdot c^{-1}}{a^3}$$

$$= \frac{1}{a^3 b^{3/2} c}$$

$\frac{1}{2} - \frac{2}{1} = \frac{1-4}{2} = -\frac{3}{2}$

Recall $\frac{a^{-n}}{1} = \frac{1}{a^n}$

Sep 16-9:54 AM

FOIL

$$(2 - \sqrt{5})^2 = (2 - \sqrt{5})(2 - \sqrt{5})$$

F: $2 \cdot 2 = 4$
 O: $2 \cdot (-\sqrt{5}) = -2\sqrt{5}$
 I: $(-\sqrt{5}) \cdot 2 = -2\sqrt{5}$
 L: $(-\sqrt{5}) \cdot (-\sqrt{5}) = 5$

$4 - 2\sqrt{5} - 2\sqrt{5} + 5$
 Collect like terms

$$9 - 4\sqrt{5}$$

Sep 16-10:31 AM

$$(\sqrt{3} + \sqrt{6})(\sqrt{5} - \sqrt{2})$$

$$\sqrt{15} - \sqrt{6} + \sqrt{30} - \sqrt{12}$$

$$\sqrt{15} - \sqrt{6} + \sqrt{30} - 2\sqrt{3}$$

Sep 16-10:36 AM

8.4

#54) $(\sqrt{a} + \sqrt{2})(\sqrt{a} + \sqrt{2} - 1)$

$$a + \sqrt{2a} - \sqrt{a} + \sqrt{2a} + 2 - \sqrt{2}$$

$$a + 2\sqrt{2a} - \sqrt{a} - \sqrt{2} - 2$$

Sep 16-10:45 AM

$x = 4$

$$x + 3 \neq 3x$$

$$4 + 3 = 3(4)$$

$$7 \neq 12$$

Sep 16-10:48 AM