October 2, 2017

#10) $-3x + 2c = -3$, for x

$$\frac{-3x}{-3} = \frac{-2c}{-3} - \frac{3}{-3} \quad A.I.$$

$$x = \frac{2}{3}c + 1 \quad M.I.$$

#7) $\mu = \frac{k}{a}$; for a

$$\frac{a}{1}\left(\mu = \frac{k}{a}\right)$$

LCD: $\frac{a}{1}$ Dist

$$\frac{a\mu}{\mu} = \frac{k}{\mu}$$

$$a = \frac{k}{\mu} \quad M.I.$$

* when an equation contains fractions find an LCD that clears all denominators by distributing the LCD through the whole equation.

#12) $\frac{b}{1}\left(\mu = \frac{a\,k}{b}\right)$; for a

$$\frac{b\mu}{k} = \frac{a\,k}{k} \quad \text{Dist of LCD}: \frac{b}{1}$$

$$\frac{b\mu}{k} = a \quad M.I.$$

Square Root Radicals

$$\underset{\text{Index}}{\overset{2}{}}\sqrt{a^1} = a^{\frac{1}{2}} \quad \leftarrow \text{Exponent}$$

Radicand   Base

#1) $\left(\sqrt{x}\right)^2 = \left(10\right)^2$

* Task: undo a Square Root
• By Squaring it!

$$x = 100$$

Ck

$$\sqrt{100} = 10$$

$$(\,?\,)^2 = 100 \qquad 10 = 10 \checkmark$$

$$(10)^2 = 100$$

#6) $\left(5\right)^2 = \left(\sqrt{\underset{\text{Radicand}}{x+3}}\right)^2$

$$25 = x + 3$$

$$22 = x$$

Ck

$$5 = \sqrt{22+3}$$

$$= \sqrt{25}$$

$$5 = 5 \checkmark$$

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$$(2)^2 = \left(\sqrt{4b}\right)^2$$

$$4 = 4b$$

$$\frac{4}{-4} = \frac{4b}{-4}$$

$$0 = b$$

Ck

$$2 = \sqrt{4(0)}$$

$$= \sqrt{0}$$

$$2 \neq 0$$

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#12) $-10\sqrt{v-10} = -60$

↑ needs to be isolated 1st

$$\frac{-10 \cdot \sqrt{v-10}}{-10} = \frac{-60}{-10}$$

$$\left(\sqrt{v-10}\right)^2 = (6)^2$$

$$v - 10 = 36$$

$$\boxed{v = 46} ✓$$

Ck

$$-10\sqrt{(46)-10} = -60$$

$$-10\sqrt{36}$$

$$-10 \cdot 6$$

$$-60 = -60 ✓$$

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