

February 1, 2017

$$\frac{1}{(x-2)^2} - \frac{2}{x-2} = 3$$

$(x-2)(x-2)$ \downarrow test $\rightarrow x \neq 2$

$$x-2 = 0$$

$$x = 2$$

Feb 1-10:04 AM

$$(3 - \sqrt{y+3})^2 = (\sqrt{2-y})^2$$

$$(3 - \sqrt{y+3})(3 - \sqrt{y+3}) = 2 - y$$

$$9 - 6\sqrt{y+3} + y + 3 = 2 - y$$

$$12 - 6\sqrt{y+3} + y = 2 - y$$

$$12 - 6\sqrt{y+3} = 2 - 2y$$

$$\frac{-6\sqrt{y+3}}{-6} = \frac{-10 - 2y}{-6}$$

$$\sqrt{y+3} = \frac{-10}{-6} + \frac{-2}{-6}y$$

$$\sqrt{y+3} = \frac{5}{3} + \frac{1}{3}y$$

$$(\sqrt{y+3})^2 = \left(\frac{5+y}{3}\right)^2$$

$$y+3 = \left(\frac{5+y}{3}\right)\left(\frac{5+y}{3}\right)$$

$$9(y+3) = \frac{25+10y+y^2}{9}$$

$$9y+27 = 25+10y+y^2$$

$$0 = y^2 + y - 2$$

$$0 = (y+2)(y-1)$$

$$y = -2 \text{ \& } y = 1$$

Feb 1-10:11 AM

$$y = -2 \checkmark$$

$$3 - \sqrt{(-2)+3} = \sqrt{2-(-2)}$$

$$3 - \sqrt{1} = \sqrt{4}$$

$$3 - 1 = 2$$

$$2 = 2 \checkmark$$

$$y = 1 \checkmark$$

$$3 - \sqrt{1+3} = \sqrt{2-1}$$

$$3 - \sqrt{4} = \sqrt{1}$$

$$3 - 2 = 1$$

$$1 = 1 \checkmark$$

Feb 1-10:27 AM

$$2x^5 - 3x^4 + x^3 = 0$$

$$x^3(2x^2 - 3x + 1) = 0$$

$\sqrt[3]{x^3} = \sqrt[3]{10}$
 $x = 0$

- factor
- Quadratic Formula

Feb 1-10:27 AM

$$(2v+7)^{1/3} - (v-3)^{1/3} = 0$$

$$\sqrt[3]{2v+7} - \sqrt[3]{v-3} = 0$$

$$(\sqrt[3]{2v+7})^3 = (\sqrt[3]{v-3})^3$$

$$2v+7 = v-3$$

$$v = -10$$

$$(2(-10)+7)^{1/3} - (-10-3)^{1/3} = 0$$

$$(-20+7)^{1/3} - (-13)^{1/3} = 0$$

$$(-13)^{1/3} - (-13)^{1/3} = 0$$

$$\sqrt[3]{-13} - \sqrt[3]{-13} = 0$$

$$(\sqrt[3]{-13})^3 = (\sqrt[3]{-13})^3$$

$$-13 = -13 \checkmark$$

Feb 1-10:33 AM

$$4^{1/2} = \sqrt{4}$$

$$= \sqrt{4}$$

$$= 2$$

$$\cancel{4^{1/2} = 2}$$

Feb 1-10:42 AM

$$\left| \frac{1}{4}w \right| = |4w|$$

$|stuff| = k; k \geq 0$

$$\begin{array}{l|l} \textcircled{1} & \textcircled{2} \\ 4\left(\frac{1}{4}w = 4w\right) & 4\left(\frac{1}{4}w = -4w\right) \\ w = 16w & w = -16w \\ 0 = 15w & 17w = 0 \\ 0 = w & w = 0 \end{array}$$

Feb 1-10:44 AM