

WELCOME TO ALGEBRA 2

SOLVING EQUATIONS

$$5(4-2x) = x - 3(2x-1)$$

$$20 - 10x = x - 6x + 3$$

$$\begin{array}{r} 20 - 10x = -5x + 3 \\ -3 \quad +10x \quad +10x \quad -3 \end{array}$$

$$\frac{17}{5} = \frac{5x}{5}$$

$$\begin{array}{r} 7x - 2 = 7x - 4 \\ -7x \quad -7x \\ -2 = -4 \quad \text{No Solution} \end{array}$$

$$\begin{array}{r} 6x - 8 = 6x - 8 \\ -6x \quad -6x \\ -8 = -8 \end{array}$$

All real #'s

EQUATIONS WITH FRACTIONS

Key: Multiply by the common denominator to get rid of all the fractions!

$$12 \left[\frac{8}{3}x + \frac{3}{4} = \frac{5}{2}(3x-7) \right]$$

$$\begin{array}{l} \cancel{12} \cdot \frac{8}{\cancel{3}}x + \cancel{12} \cdot \frac{3}{\cancel{4}} = \cancel{12} \cdot \frac{5}{\cancel{2}}(3x-7) \\ 32x + 9 = 30(3x-7) \\ 32x + 9 = 90x - 210 \\ -32x + 210 \quad -32x + 210 \\ \hline \frac{219}{58} = \frac{\cancel{58}x}{\cancel{58}} \end{array}$$

$$4(2x-5) = \frac{2}{3} - \frac{6}{5}x$$

Rearrange the equation to solve for p .

$$3 \cdot \left[5 + 2h = 4 + \frac{2}{3}p \right] \quad \frac{2}{3} \cdot 3$$

$$\begin{array}{r} 15 + 6h = 12 + 2p \\ -12 \quad -12 \end{array}$$

$$\frac{3 + 6h}{2} = \frac{2p}{2}$$

OR

$$\frac{3}{2} + \frac{6h}{2} = p$$

$$\frac{3}{2} + 3h = p$$