

Warmup Questions



$x = \#$

#1

$$5(2x - 2) = 30$$

$$10x - 10 = 30 + 10$$

$$\frac{10x}{10} = \frac{40}{10}$$

$$x = 4$$

#2

$$\frac{x}{3} - \frac{3x}{4} = 13$$

$$\frac{12x}{3} - \frac{36x}{4} = 156$$

$$4x - 9x = 156$$

$$-5x = 156$$

$$x = \frac{156}{-5}$$

Warmup Questions



$x = \#$

#3 $2 = 2(3x - 4) + 2 - 4x$

$$\begin{aligned} 2 &= 6x - 8 + 2 - 4x \\ 2 &= 2x - 6 \\ -2x &= -6 - 2 \\ -2x &= -8 \\ x &= 4 \end{aligned}$$

#4 $\frac{2}{3}(2x - 3) + \frac{1}{2}(-4x + 1) = 2$

$$\begin{aligned} \frac{12}{3}(2x - 3) + \frac{6}{2}(-4x + 1) &= 12 \\ 4(2x - 3) + 3(-4x + 1) &= 12 \\ 8x - 12 - 12x + 3 &= 12 \\ -4x - 9 &= 12 + 9 \\ -4x &= 21 \\ x &= -\frac{21}{4} \end{aligned}$$

$$x=3$$

$$\begin{aligned} \textcircled{1} \quad & x^2 \\ & (3)^2 \\ & = 9 \end{aligned}$$

$$\begin{aligned} & 3(x-2) \\ & 3(3-2) \\ & 3(1) \\ & = 3 \end{aligned}$$

$$\begin{aligned} & (x-1)(x-2) \\ & (3-1)(3-2) \\ & (2)(1) \\ & = 2 \end{aligned}$$

$$\begin{aligned} & x^3 \\ & 3^3 \quad 3 \times 3 \times 3 \\ & = 27 \end{aligned}$$

$$x=2 \quad y=4$$

$$x^{y+2} \cdot x^{y+3} \cdot x^{y-5}$$

$$x^{y+2+y+3+y-5}$$

$$x^{3y}$$

$$2^{3(4)}$$

$$2^{12}$$

$$(3x-2)(4x+2)$$

$$12x^2 + 6x - 8x - 4$$

$$12x^2 - 2x - 4$$

$$3(x-2)^2$$

$$3(x-2)(x-2)$$

$$3(x^2 - 2x - 2x + 4)$$

$$3(x^2 - 4x + 4)$$

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

$$[(3x+1)(2x-1)] - [(2x-1)(3x+2)]$$

$$[6x^2 - 3x + 2x - 1] - [6x^2 + 4x - 3x - 2]$$

$$[6x^2 - 1x - 1] + [-6x^2 - 1x + 2]$$

$$\cancel{6x^2} - \underline{1x} \textcircled{-1} - \cancel{6x^2} - \underline{1x} \textcircled{+2}$$

$$= -2x + 1$$

$$(X^{1y+3})(X^{1y-2})(X^{5y+2}) \div (X^{5y})$$

$$(X^{7y+3}) \div (X^{5y})$$

$$= X^{2y+3}$$

$$(3x^3y^2z^3)^4$$

$$81x^{12}y^8z^{12}$$

