

## Starter

8 FEB 2018

Solve.

$$1) \quad \underline{3x} - 2 = 15$$

$$\quad \quad \quad \underline{+2} \quad \underline{+2}$$

$$\underline{3x} = \underline{17}$$

$$\quad \quad \quad \underline{3} \quad \quad \underline{3}$$

$$x = \frac{17}{3}$$

$$2) \quad \cancel{3} \cdot \frac{y}{\cancel{3}} = 4 \cdot -3$$

$$y = -12$$

Solve for the variable. SHOW ALL WORK!!!

$$1) \quad \underline{-4y} = 12$$

$$\underline{-4} \quad \underline{-4}$$

$$y = -3$$

$$2) \quad \underline{6+x} = 5$$

$$\underline{-6} \quad \underline{-6}$$

$$x = -1$$

$$x + 6 = 5$$

$$3) \quad \cancel{3} \cdot \frac{p}{\cancel{3}} = 4 \cdot 3$$

$$p = 12$$

4)

$$\begin{array}{r} 3x - 4 = 12 \\ \hline \quad \cancel{+4} \quad +4 \\ \hline \end{array}$$

$$\begin{array}{r} 3x = 16 \\ \hline \quad \cancel{3} \quad \quad \quad \cancel{3} \\ \hline \end{array}$$

$$x = \frac{16}{3}$$

5)

$$-4 + 3p = 19$$

$$\begin{array}{r} 3p - 4 = 19 \\ \hline \quad \cancel{+4} \quad \quad \quad +4 \\ \hline \end{array}$$

$$\begin{array}{r} 3p = 23 \\ \hline \quad \cancel{3} \quad \quad \quad \cancel{3} \\ \hline \end{array}$$

$$p = \frac{23}{3}$$

6)

$$\overline{6 = 4 - 2y}$$

$$4 - 2y = 6$$

$$-2y + 4 = 6$$

$$\underline{-4} \quad \underline{-4}$$

$$\underline{-2y = 2} \quad \underline{-2}$$

$$y = -1$$

If you don't like the order re-write the problem

subtract

divide

7)

$$\overline{3(x-1) = 12}$$

$$\underline{3x - 3 = 12} \quad \underline{+3} \quad \underline{+3}$$

$$\underline{3x = 15} \quad \underline{3} \quad \underline{3}$$

$$x = 5$$

Distribute

undo subtract

undo multiply

8)

$$5 = -2(2 - k)$$

$$5 = -4 + 2k$$

$$\begin{array}{r} +4 \\ \hline 9 = 2k \end{array}$$

$$\frac{9}{2} = \frac{2k}{2}$$

$$k = \frac{9}{2}$$

$$5 = 2k - 4$$

$$\begin{array}{r} +4 \\ \hline 9 = 2k \end{array}$$

$$\frac{9}{2} = \frac{2k}{2}$$

9)

$$6 - 2(p + 2) = 4 + p$$

$$6 - 2p - 4 = 4 + p$$

$$-2p + 2 = 4 + p$$

$$\begin{array}{r} +2p \\ \hline 2 = 4 + 3p \end{array}$$

$$2 = 4 + 3p$$

$$\begin{array}{r} -4 \\ \hline -2 = 3p \end{array}$$

$$-2 = 3p$$

$$\begin{array}{r} \frac{-2}{3} = \frac{3p}{3} \end{array}$$

$$-\frac{2}{3} = p$$

Distribute

Combine like terms

p's on same side

Undo add

Undo Mult.

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Algebra 1A