

Name: _____

Hour: _____

Solving Multiple-Step Equations *Always distribute & combine like terms before balancing.

$$\begin{array}{r}
 1. -21 = 7(3-x) \\
 -21 - 21 = 21 - 7x - 21 \\
 -42 = -7x \\
 -42 \div -7 = -7x \div -7 \\
 6 = x
 \end{array}$$

G = X

$$\begin{array}{r}
 3. 3n - 40 + 2n = 15 \\
 5n - 40 + 40 = 15 + 40 \\
 5n = 55 \\
 5n \div 5 = 55 \div 5 \\
 n = 11
 \end{array}$$

N = 11

$$\begin{array}{r}
 5. 2(s-1) = 6 \\
 2s - 2 + 2 = 6 + 2 \\
 2s = 8 \\
 2s \div 2 = 8 \div 2 \\
 s = 4
 \end{array}$$

S = 4

$$\begin{array}{r}
 7. -2(17-3k) = -22 \\
 -34 + 6k = -22 + 34 \\
 6k = 12 \\
 6k \div 6 = 12 \div 6 \\
 k = 2
 \end{array}$$

K = 2

$$\begin{array}{r}
 2. 5x - 2(x-1) = 8 \\
 5x - 2x + 2 = 8 - 2 \\
 3x + 2 = 6 \\
 3x = 6 \\
 3x \div 3 = 6 \div 3 \\
 x = 2
 \end{array}$$

X = 2

$$\begin{array}{r}
 4. 13 = 2y - 3(y+4) \\
 13 = 2y - 3y - 12 \\
 13 + 12 + 12 = -1y - 12 + 12 + 12 \\
 25 = -1y \\
 25 \div -1 = -1y \div -1 \\
 -25 = y
 \end{array}$$

-25 = y

$$\begin{array}{r}
 6. 12 = 3(m-17) \\
 12 = 3m - 51 + 51 \\
 63 = 3m \\
 63 \div 3 = 3m \div 3 \\
 21 = m
 \end{array}$$

21 = m

$$\begin{array}{r}
 8. 4k - 3(8k-60) = -20 \\
 4k - 24k + 180 = -20 \\
 -20k + 180 = -20 - 180 \\
 -20k = -200 \\
 -20k \div -20 = -200 \div -20 \\
 k = 10
 \end{array}$$

K = 10

Homework: "What is Heavy Forward But Not Backward?" wkst.

Adapted: "What is Heavy Forward But Not Backward?" wkst. (evens only)