1.2 Solving Multistep Equations NOTES

It All + ADDS UP!

Solving Multistep Equations

$$5-n = -\frac{(n-2)+3}{2}$$

Rid the equation of any

"funky fractions"

Remember: multiply by the denominator on each side of the equation

$$2(5-n)=(-(n-2)+3)$$

$$10-2n = -(n-2)+3$$

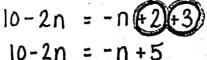
Use the distributive property, if applicable (see parentheses)

Remember: -(n + 3) is the same as -1(n + 3)

$$10-2n = -1(n-2)+3$$

 $10-2n = -n+2+3$

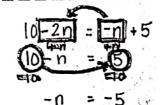
Combine like terms on each side 10-2n = -6 of the equation, if applicable 10-2n = -6



Move variable terms to one side of the equation, and constant terms to the other side of the equation.

Remember: add or subtract entire term from

each side of the equation to move it



Isolate the variable to solve the equation.

Check your solution by plugging it back into the equation.

Is your equation balanced? (One side of the equation should equal the other.)

Examples

①
$$2(4x-3)-8=2(x+2)$$
 ② $-i(i+7y)-6(-7-y)=36$
 $8x-6-8=2x+4$ $-1-7y+42+6y=36$
 $8x-14=2x+4$ $-1y+4y=36$
 $-1y$

2)
$$-i(i+7y)-6(-7-y)=30$$

 $-1-7y+42+6y=36$
 $-1y+4y=36$
 -41
 -41
 -41
 -41
 -41
 -41
 -41
 -41
 -41
 -41

$$\begin{array}{c} \text{TT} - 3(4x+3) + 4(6x+1) = 43 \\ -12x - 9 + 24x + 4 = 43 \\ 12x - 5 = 43 \\ +5 + 5 \\ \hline 12x = 48 \\ \end{array}$$

$$\begin{array}{c} 6.1 \times + 6.5 \\ -12 \times + 6.5 \\ \hline 3 \times + 10 = 54 \\ -10 & -10 \\ \end{array}$$

X=3

$$6.1 \times +6.5 = 54$$

$$3 \times +10 = 54$$

$$-10 -10$$

$$3 \times = 44$$

$$5(12 - 5(x+15) = (4)5)$$

$$60 - 5.5(x+15) = 20$$

$$60 - 5(x+15) = 20$$

$$60 - 5x - 75 = 20$$

$$-15 - 5x = 20$$

$$+15$$

$$-5x = 35$$

$$\frac{-10}{3} = \frac{44}{3}$$
 $x = \frac{44}{3}$

sides