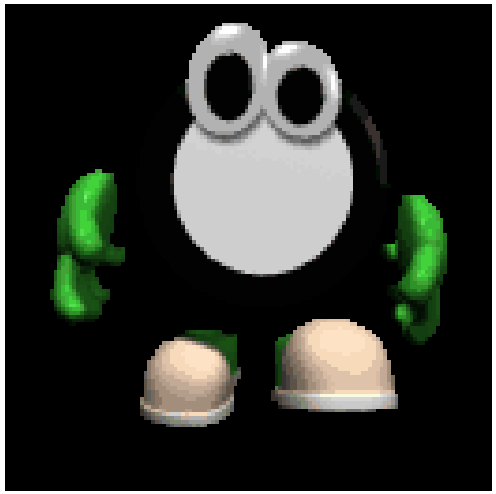
Solving Mutli-Step Equations!
It's kinda like playing
Red Rover, Red Rover, Let X Come On Over!



Same Guidelines or Rules as Basic Equations with the following added!

Organize each side by combining like terms if possible.

Move left, right, left, right, etc...take turns for each side!

Variables on one side, constants on another.

Let's play!

$$5x+3(x+4)=28$$

$5x+3x+12=28$

$8x+12=28$

$8x=28-12$

$8x=16$

$\frac{8x}{8}=\frac{16}{8}$

$x=2$

(1) $4x - 3(x - 2) = 21$

Help! My brain is on fire!

$4x - 3x + 6 = 21$

$x + 6 = 21$

$x = 21 - 6$

$x = 15$

Anyone want to know how to get rid of fractions?!?!

(2) $66 = -\frac{6}{5}(x+3)$

$5(66) = 5\left(-\frac{6}{5}\right)(x+3)$

$330 = -6(x+3)$

$-330 = 6(x+3)$

$330 = -6x - 18$

$330 + 18 = -6x$

$348 = -6x$

$\frac{348}{-6} = x$

$-\frac{174}{3} = x$

$-58 = x$

(3) $7x + 19 = -2x + 55$

Relax, this is easy!

$+2x$

$9x + 19 = 55$

-19

$9x = 36$

$x = \frac{36}{9}$

$x = 4$

(6) $4(1-x)+3x=-2(x+1)$

Who let the dogs out?

$4-4x+3x=-2x-2$

$4-x=-2x-2$

$-x=-2x-2-4$

$-x=-2x-6$

$+2x-x=-6$

$x=-6$

Dear Santa,

I wish i didn't have to solve this problem!

(7) $\frac{1}{4}(12x+16)=10-3(x-2)$

$1(12x+16)=40-12(x-2)$

$12x+16=40-12x+24$

$12x+16=64-12x$

$+12x \quad +12x$

$24x+16=64$

$-16 \quad -16$

$24x=48$

$x=2$

$-12(x-2)$

$-12x+24$

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(8) $\frac{2}{3}(6c+3) = 6(c-3)$

$2(6c+3) = 18(c-3)$

$12c + 6 = 18c - 54$

$-12c \quad -12c$

$6 = 6c - 54$

$+54 \quad +54$

$60 = 6c$

$\frac{60}{6} = \frac{6c}{6}$

$c = 10$

(9) $6x - 4(-3x + 2) = 10$

This problem is eggciting!

$6x + 12x - 8 = 10$

$18x - 8 = 10$
$+8$

$18x = 18$

Don't be a baby...it's not that much work!

Pg 148-149 #22-40 even & #52

Pg 157-158 #18-40 even & #46