Name _____ Block _____

Two Step Equations

Just as in one step equations, the goal of solving two step equations is to isolate the variable

Use inverse operations to isolate the variable.

$\frac{x}{2} - 8 = 26$ Start by undoing addition or subtraction first.

$+8 \quad +8$

$\frac{x}{2} = 34$

2. $\frac{x}{2} = 34 \cdot 2$

$x = 68$

Once this inverse operation has been completed, the equation should look like a one step equation that will need to be solved using the inverse of division (which is) or multiplication

Let's try another two step problem:

$7c + 9 = 37$

$-9 \quad -9$

Use the inverse of addition which is subtraction. Now the equation is a 1-step.

$\frac{7c}{7} = \frac{28}{7}$ Use the inverse of multiplication which is division to solve for the variable.

$c = 4$ By using the inverse operation we isolate the variable in its most basic form (simplest terms).

TRY:

1) $\frac{c}{4} - 6 = -4$

$+6 \quad +6$

$\frac{c}{4} = 2$

$\cdot 4 \quad \cdot 4$

$c = 8$

2) $9x + 10 = 37$

$-10 \quad -10$

$\frac{9x}{9} = \frac{27}{9}$

$x = 3$

3) $\frac{v}{-2} + 12 = 8$

$-12 \quad -12$

$\frac{v}{-2} = -4$

$\cdot -2 \quad \cdot -2$

$v = 8$

4) $4 - \frac{n}{6} = 1$

$-4 \quad -4$

$-\frac{n}{6} = -3$

$\cdot -6 \quad \cdot -6$

$n = -18$