Int 2 | **Notes 1-4 Two-Step Equations** | **Unit 1**

Warm-up:

Solve the equation

1. $-3.2x = 7.4$

$\frac{-3.2}{-3.2}$ $\quad \frac{-3.2}{-3.2}$

$x = -2.3$

2. $\frac{3}{4} = x - \frac{2}{3}$

$\frac{9}{12}$ $\quad \frac{3}{4}$ $\quad \frac{4}{4}$ $\quad \frac{2}{3}$

$+\frac{8}{12}$ $\quad \frac{+2}{+3}$ $\quad +\frac{2}{3}$

$\frac{17}{12}$

Steps for Solving Two-Step Equations:

Goal is to get the variable by itself.

* Start with the # that is farthest away from the variable but on the same side.

Ex. 1: $2x + 3 = 7$

$\frac{-3}{} \quad \frac{-3}{}$

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

$x = 2$

Ex. 2: $5 + 2n = -1$

$\frac{-5}{} \quad \frac{-5}{}$

$\frac{2n}{2} = \frac{-6}{2}$

$n = -3$

Ex. 3: $25 = \frac{1}{4}n - 3$

$+3 \quad +3$

$\frac{4}{1} \cdot \frac{28}{1} = \frac{1}{4}n \cdot \frac{4}{1}$

$112 = n$

Ex. 4: $6 - 3x = 21$

$-6 \quad -6$

$\frac{-3x}{-3} = \frac{15}{-3}$

$x = -5$

$-3x + 6 = 21$

$-6 \quad -6$

Ex. 5: $\frac{n}{-3} - 2 = -18$

$+2 \quad +2$

$-3 \cdot \frac{n}{-3} = -16 \cdot -3$

$n = 48$

Ex. 6: $-4 = \frac{1}{3}z + 2$

$-2 \quad -2$

$\frac{3}{1} \cdot -6 = \frac{1}{3}z$

$\frac{1}{3} \quad \frac{1}{3}$

$-18 = z$

Ex. 7: $\frac{x+5}{7} = 3 \cdot 7$

$x + 5 = 21$

$-5 \quad -5$

$x = 16$

Ex. 8: $\frac{x-6}{-4} = -8 \cdot -4$

$x - 6 = 32$

$+6 \quad +6$

$x = 38$