

Chapter 1.1

Solving Equations

$$\text{Ex. } \frac{3x}{3} = \frac{15}{3} \quad \boxed{x=5}$$

or

$$\frac{1}{3} \cdot 3x = 15 \cdot \frac{1}{3} = \boxed{x=5}$$

"x" - represents
what you
don't know.

* whenever you have a fraction (x) then multiply
by the reciprocal *

Ex.

$$\frac{11}{2} \cdot \frac{2}{11}x = 10 \cdot \frac{11}{2} \Rightarrow \boxed{x=55}$$

Ex. $x+5=30$

$$\begin{array}{r} -5 \quad -5 \\ \hline \boxed{x = -25} \end{array}$$

* many ways to do each
problem, as long as
it gets to the same
end. *

1.1 #12

$$2a + 4(a-1) = 3 - (2a+1)$$

$$\begin{array}{r} \downarrow \\ 2a + 4a - 1 = 3 - 2a - 1 \end{array}$$

Flip the sign to get rid of
the []

$$\begin{array}{r} 6a - 4 = 2 - 2a \\ + 2a \quad \quad + 2a \end{array}$$

$$\begin{array}{r} 8a - 4 = 2 \\ + 4 \quad + 4 \end{array}$$

$$\begin{array}{r} 8a = 6 \\ \hline \frac{8a}{8} = \frac{6}{8} \end{array}$$

$$\boxed{a = \frac{6}{8} = \frac{3}{4}}$$

~~5A 5A~~ (#34)

$$\begin{aligned}2a + 4(a-1) &= 1 + 3(2a+1) \\2a + 4a - 4 &= 1 + 6a + 3 \\6a - 4 &= 6a + 4\end{aligned}$$

$$\begin{array}{r} -6a \qquad -6a \\ \hline -4 = 4 \end{array} \quad \underline{\underline{\text{WRONG}}}$$

NO SOLUTION

(#24)

$$0.4(17 - 4.25b) - 3.15 = 4.16$$

$$6.8 - 1.7b - 3.15 = 4.16$$

$$3.65 - 1.7b = 4.16$$

$$\begin{array}{r} 3.65 - 1.7b = 4.16 \\ -3.65 \qquad -3.65 \\ \hline -1.7b = 0.51 \end{array}$$

$$\begin{array}{r} -1.7b = 0.51 \\ -1.7 \qquad -1.7 \\ \hline b = -0.3 \end{array}$$

$$b = -0.3$$

$$b = -0.3$$

IHF50A

$$12 \times \left[\frac{1}{6}(n-12) \right] = \left[\frac{1}{4}(n+8) - 2 \right] \times 12$$

$$2(n-12) = 3(n+8) - 24$$

$$2n - 24 = 3n + 24 - 24$$

$$2n - 24 = 3n$$

$$\begin{array}{r} 2n - 24 = 3n \\ -2n \qquad -2n \\ \hline -24 = n \end{array}$$

$$-24 = n$$

*when you have fractions, multiply both sides

by the same #*

* Homework 1.1 *

#7-35 odd