I. Equation: two mathematical expressions that are “equal” to each other...

\( 5 + 100 \div 10 = ___ \)
\( x - 25 = 25 \)
\( 5x - 10 = 25 \)

the letter “\( x \)” is referred to as a “variable” (and often represents an unknown quantity)...

II. Solution(s) of an Equation (p.48):
any number(s) which make the equation true (when substituted for the variable in the equation)...

\( x = 50 \) is a solution to the 2\(^{nd}\) equation
\( x = 7 \) is a solution to the 3\(^{rd}\) equation

HW: Read section 1.7 (pp.48-51)
III. Two Types of Equation:

If “a” & “b” are any two numbers, then...

1. $x + a = b \implies x + a - a = b - a$
   
   i.e., $x = b - a$

2. $ax = b \implies ax \div a = b \div a$

   i.e., $x = b \div a$

IV. Examples (pp.52-53):

Exercises #18,24,40,56

HW: pp.52-53 / Exercises #13-57(odd)
I. Basic Word Problems:
1. Read the problem, seeking to identify the unknown quantity (you may wish to assign a variable to represent it) and record it.
2. Record the known (i.e., given) quantities.
3. Write an expression (or equation) using whatever arithmetic operations relate the known quantities to the unknown quantity.
4. Simplify the expression(s) by performing the operations (isolating the variable if needed).

II. Example (p.64): Exercise #8

HW: pp.64-65 / Exercises #5,7,11