I. Quadratic Equation (p.451):
\[ ax^2 + bx + c = 0 \]
a, b & c are real # constants
\[ e.g., \quad 2x^2 - 3x - 10 = 0 \]
a = \underline{2}, \quad b = \underline{-3} \quad & \quad c = \underline{-10}

II. Solving Equations by Factoring (p.452):
\[ ab = 0 \iff a = 0 \text{ and/or } b = 0 \]
\[ e.g., \quad x(x - 10) = 0 \iff x = 0 \text{ or } x - 10 = 0 \]

III. Examples (pp.457-458): Exercises #2-48(even),50

IV. \( x \)-intercept(s): any point on a graph where the line/curve intersects the \( x \)-axis (\( i.e., y = 0 \))...
V. Linear equation vs. Quadratic equation:

\[ y = mx + b \]

\[ y = ax^2 + bx + c \]

VI. Examples (pp.459-459): Exercises #58-66 (even)

HW: pp.457-458 / Exercises #1-53 (every other odd)
pp.458-459 / Exercises #57-71 (odd)
I. Word Problem Guidelines #1

1. Identify/record the unknown(s)
2. Assign a variable (expression for each unknown*)
3. Identify/record the knowns (given info); using phrases, pictures, diagrams, tables, etc.
4. Determine a relationship (e.g., an equation) between the unknown and the known quantities
5. Solve and use the solution as needed to answer the original problem (refer to step 1)

* If there are two (or more) unknowns to be solved for, assign a variable to one unknown and then represent the others using expressions which involve that variable (i.e., by how they relate to the labeled unknown).

II. Examples (pp.467-468): Exercises #6,8
HW: pp.467-468 / Exercises #1, 5, 9
Read pp.460-465 (section 5.8)