MAT0028 ~ Lesson 11

Work the following examples as you listen to the recorded lecture.

Solving Linear Equations

Steps for solving equations:
1. **Simplify each side** of the equation by distributing multiplication and/or combining like terms.
2. Get the **variable terms to the same side** by **adding or subtracting** the smaller term.
3. Get rid of **any number** that is **added or subtracted** on the **side with the variable** by performing the **opposite operation**.
4. **Divide** both sides by the **coefficient** of the variable.

Solve:

Example 1: $-4y + 10 = -2(3y + 1)$

Example 2: $15x - 8 = 10 + 9x$

Example 3: $8 - 2(a + 1) = 9 + a$

Example 4: $-2y - 10 = 5y + 18$

Example 5: $\frac{2}{3}x + \frac{4}{3} = -\frac{2}{3}$

Example 6: : $\frac{2(x+1)}{4} = 3x - 2$

Example 7: $4(3x + 2) = 12x + 8$

Example 8: $3x - 7 = 3(x + 1)$