MDE 010, Quiz #11, Summer 2023   Name _____

Instructions: Show all work. Give exact answers (improper fractions) and do no round unless specifically asked to do so. If you work the problem in your calculator you can write keystrokes to show work for partial credit.

1. Solve the equations for the variable. State whether the equation is conditional, an identity or a contradiction, and clearly state the solution (if any) or say that there is no solution.

   a. $3x - (2x - 7) + 5 = -5x + 3(2x + 4) - 1$

   b. $\frac{4}{3}x + \frac{x-2}{2} = \frac{x-1}{6}$

2. What is the difference between "simplifying an expression" and "solving an equation"? Are there some things you can do in one of these that you cannot do in the other? (10 points)