

Name _____

Homework 1
Sections 1.1 & 1.2

1. (5) Solve the equation $\frac{1}{2}(2t + 3) = \frac{1}{3} - \frac{1}{12}(4t - 10)$.

2. (5) Solve the equation $x(x + 2)(x + 4) + 3 = (x + 2)^3 - 7x$.

3. (6) Determine the values of B and C that solve the system of equations: $\begin{cases} 3B - 2C = 20 \\ 2B + 6C = -38 \end{cases}$.

4. (2ea) While cleaning out her car, Sarah finds 30 coins in her cupholder with a total value of \$5.70. The change consists only of quarters and dimes. Let Q represent the number of quarters she found and D represent how many dimes she found.

NOTE: You do not need to solve anything in this problem.

- (a) Write an equation (using the variables defined above) which represents the fact that she found a total of 30 coins.

- (b) Write an equation (using the variables defined above) which represents the statement “the total value of the coins is \$5.70”.