EE215 – Circuits and Systems
Lab Exercise 8
Partial Fraction Expansion (PFE) I

Date: ____________________ Name: _____________________________

Procedure
1. Determine the partial fraction expansion and the corresponding time function of the following Laplace transforms. Record all derivations below (and on the back if necessary).
   a) \( F(s) = \frac{s+8}{(s+1)(s+2)} \)
   b) \( F(s) = \frac{24}{(s+1)(s+2)^2} \)
   c) \( F(s) = \frac{s+1}{s^2+4s+6} \)

2. Verify your results in part 1a and 1b by writing (two) Octave/MATLAB scripts that use the \texttt{residue} function to find the PFE. Use the \texttt{conv} function to perform all polynomial multiplications. Cut and paste your Octave/MATLAB scripts into a word processor and attach a printed copy to this exercise.