Name_____Section_____

Part 1: Given the following expressions for Y(s) find y(t)

1.1 $Y(s) = \frac{s-18}{(s+2)(s-3)}$

1.2 $Y(s) = \frac{-3s^2-14s+32}{(s+4)(s^2+4)} = \frac{A}{s+4} + \frac{Bs+C}{s^2+4}$

1.3 $Y(s) = \frac{2s-3}{s^2+2s+10}$ hint complete square

1.4 $Y(s) = \frac{90}{(s+5)(s+2)^2}$ repeated roots

Part 2: For the following problems solve the IVP - be careful of initial conditions and coefficients which change in each problem

1.5 $y'' + 6y' + 8y = 0$ y'(0) = -4, y(0) = 1

1.6 $y'' + 6y' + 8y = 0$ y'(0) = 1, y(0) = 1

1.7 $y'' + 6y' + 8y = 5$ y'(0) = 1, y(0) = 1

1.8 $y'' + 5y' + 6y = 5e^{-5t}$ y'(0) = 0, y(0) = 0

1.9 $y' + 6y = \mathrm{t}$ y(0) = 1