

MAP 2302 WRITTEN HOMEWORK #12

Due Monday November 18th, in Canvas

Question 1. Find the inverse Laplace transform of $\frac{7s^2 + 23s + 30}{(s - 2)(s^2 + 2s + 5)}$.

Question 2. Find $\mathcal{L}^{-1}\{F\}$, given $s^2F(s) - 4F(s) = \frac{5}{s+1}$.

Question 3. Solve the initial value problem using Laplace transforms.

$$y'' + 6y' + 9y = 0, \quad y(0) = -1, \quad y'(0) = 6$$