

Test 2

Q1

9-3 Find the Laplace Transform of:

$$x(t) = 3e^{-2t}u(t) - 2e^{-t}u(t).$$

Q2

3-20-b By using Partial Fraction, find the Inverse Laplace Transform of:

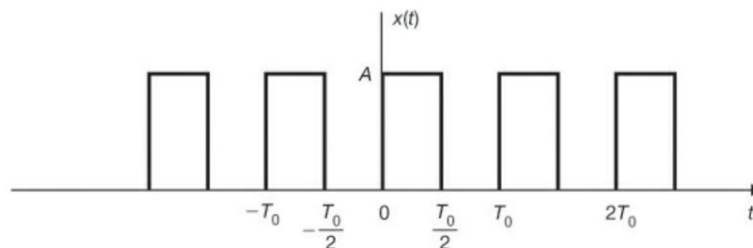
$$X(s) = \frac{s^2 + 6s + 7}{s^2 + 3s + 2}, \quad \text{Re}(s) > -1$$

(hint: change to this form first.....)

$$\frac{s^2 + 6s + 7}{s^2 + 3s + 2} = 1 + \frac{\dots\dots}{s^2 + 3s + 2}$$

Q3

5-5-a Find the Complex Fourier Series of the waveform shown below:



Q4

5-21 Find the Fourier Transform of the signal shown below:

$$x(t) = e^{-a|t|} \quad a > 0$$

