Problem 1. Find the total response (transient plus steady state) of the systems

\[ G_1(s) = \frac{1}{0.5s + 1}, \quad G_2(s) = \frac{4}{s^2 + 2s + 4} \]

for a harmonic input of \( r(t) = 5 \sin 2t \).

Problem 2. Problem 5.4 parts a)-f) of text book.

Problem 3. Problem 5.6 parts a)-f) of text book.