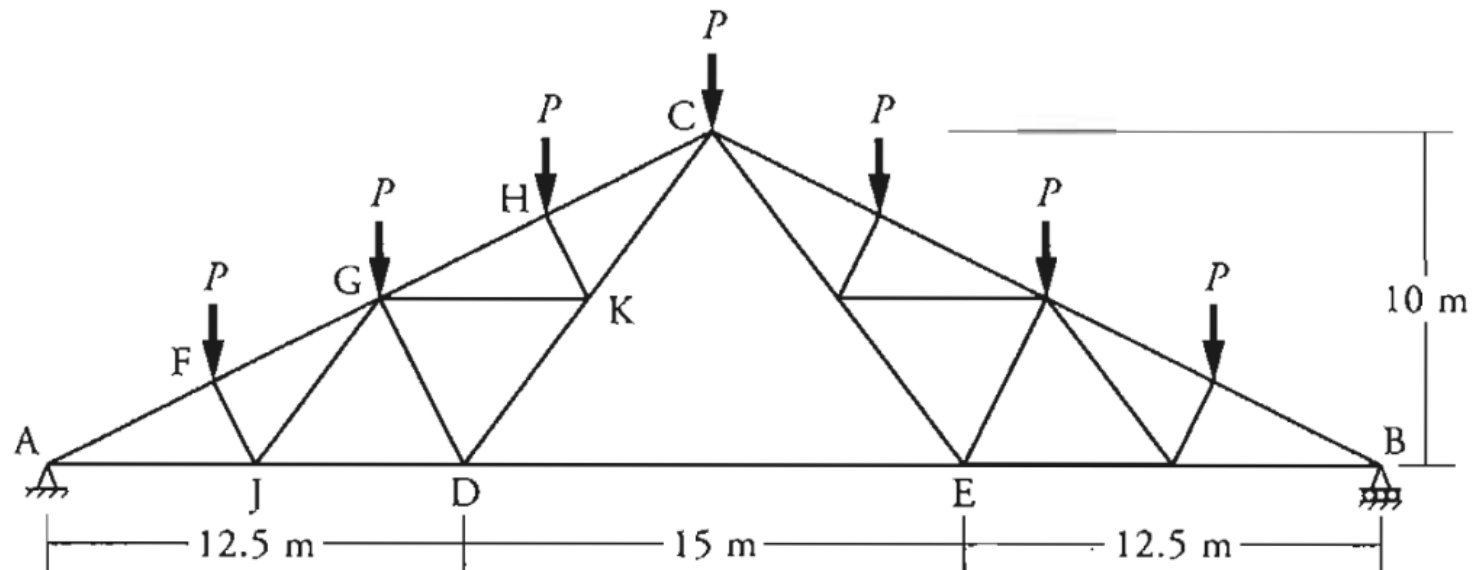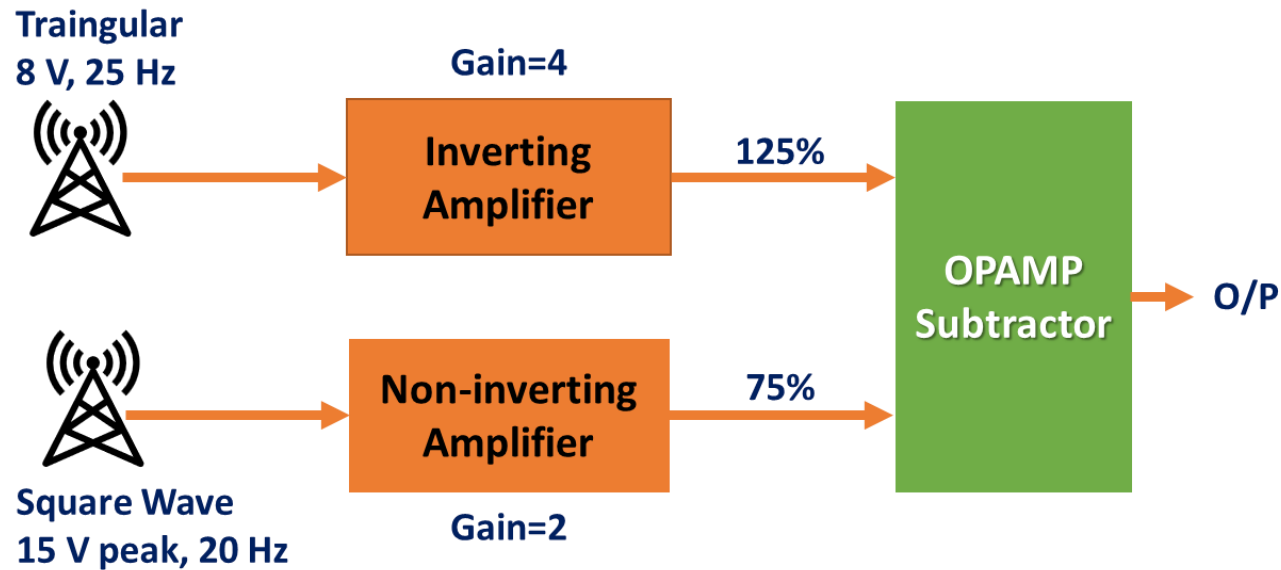PART A

Write a computer program to solve the system of linear equations to determine the value of the member forces for the truss shown in the figure for different values of P ranging from 10 kN to 100 kN with an increment of 5 kN.

PART B

Create MATLAB code to mimic the operating concept of the OPAMP-based system given below.

- MATLAB codes should estimate the instantaneous voltage values at all the stages.

- If the final output is applied to an inductor, demonstrate the variation in the energy stored in it. Choose a suitable numerical approach.

Traingular
8 V, 25 Hz

Gain=4

Inverting Amplifier

125%

OPAMP Subtractor

O/P

Square Wave
15 V peak, 20 Hz

Non-inverting Amplifier

75%

Gain=2