Sheet (2)

1. Write a program to compute moments of inertia (I_x & I_y) of rectangular sections of width (B) and height (D).

2. Write a program to compute the area of a triangle from the lengths of its members by using the following equation :

$$A = \sqrt{P(P - A)(P - B)(P - C)}$$

   Where: p = half of parameter, and   A,B,C = lengths of members.

3. Write a program to calculate the maximum bending moment, maximum shear force, and maximum deflection in a simple beam subjected to uniformly distributed load (w).
   Where: L = span of the beam

   b.t = cross section of the beam

   E = modulus of elasticity of beam material