University of Mohamed Khider, Biskra.

Department of Civil Engineering and Hydraulics.

2<sup>nd</sup> Year Under-graduation

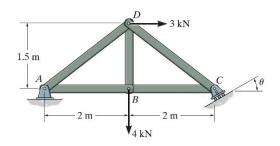
Engineering Mechanics- Statics

# **Truss analysis + Geometric properties**

### **Problem 1:**

Determine the force in each member of the truss, and state if the members are in tension or compression set  $\theta$ =30°. (Figure.2).

- Use the method of joints.

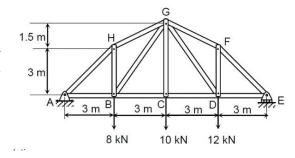


Year: 2023/2024

## **Problem 2:**

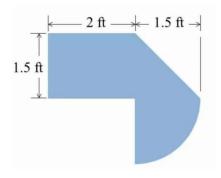
For the truss in Figure 3, calculate the force in members GH, BC and BH and sate if these elements are in compression or in tension.

- Use the method of sections.



#### **Problem 3:**

Determine the centroid of the composite shape in Figure 4



## **Problem 4:**

Calculate the centroid, and the moment area of inertia about the x axis of the shape in Figure 5. R=1 in

