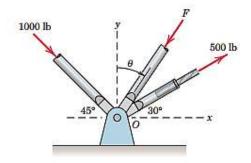
University of Mohamed Khider, Biskra. Department of Civil Engineering and Hydraulics. 2<sup>nd</sup> Year Under-graduation Engineering Mechanics- Statics

## Force in 2D and 3D

## **Problem 1:**

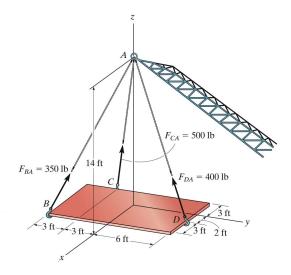
Two rods and one cable are attached to the support at O (Fig.1). If two of the forces are as shown, determine the magnitude F and direction of the third force so that the resultant of the three forces is vertically downward with a magnitude of 1200 lb



Year: 2023/2024

## **Problem 2:**

The plate is suspended using the three cables which exert the forces shown. Express each force as a Cartesian vector.



## **Problem 3:**

Express each of the forces in Cartesian vector form and determine the magnitude and coordinate direction angles of the resultant force.

