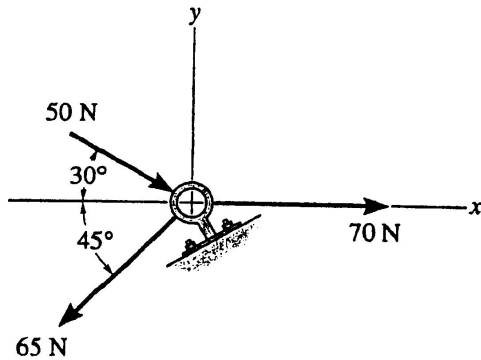
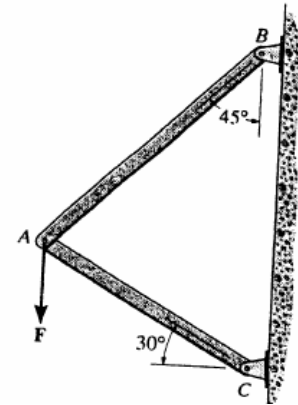
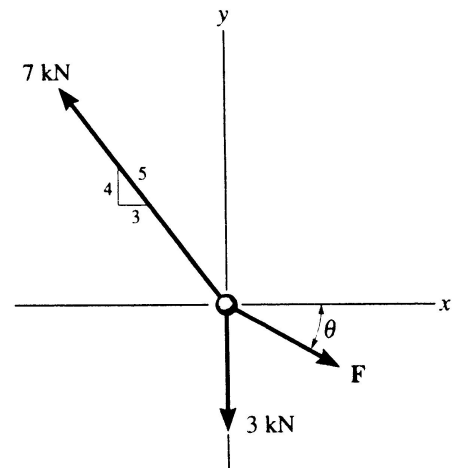
	Alexandria Higher Institute of Engineering & Technology (AIET)	
	General	
	ME001	Mechanics I
	Examiners:	Dr. Rola Afify and committee
		Preparatory Year
		Mid Term, Nov.,10 ,2010
		Time: 1.5 hour

Answer the following questions:

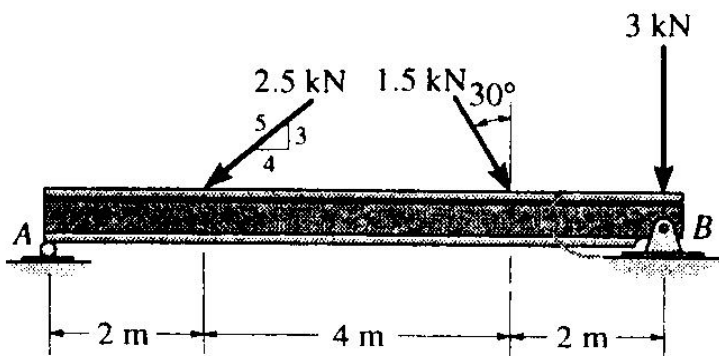
- 1- The vertical Force F acts downwards at A on the two-member frame. Determine graphically the magnitudes of the two components of F directed along the axes of AB and Ac . Set $F = 500$ N.



- 2- Determine the magnitude of the resultant force and its direction, measured clockwise from the positive x -axis.



- 3- Determine the magnitude and direction Θ of F so that the particle is in equilibrium.



- 4- Replace the force system acting on the beam by an equivalent force and specify its distance from point A.

Good Luck