



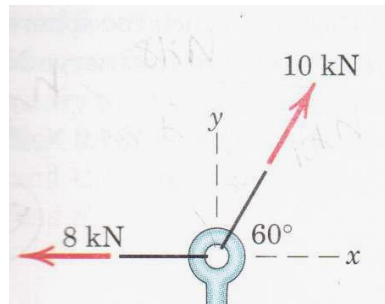
Alexandria Higher Institute of Engineering & Technology (AIET)		
Department of: General	Preparatory Year	0 th Year
ME001	Mechanics I	Midterm-of-Semester-1 Exam, Nov., 1, 2011
Examiners:	Dr. Sayed Hassan and Dr. Rola Afify	Time: 1 hour

Answer the following questions:

Question one: (5 marks)

Determine the magnitude of the resultant R of the two forces shown and its direction measured counterclockwise from positive x -axis by applying:

- A) Graphical solution (parallelogram law). B) Analytical solution.



Question Two: (5 marks)

A 100 N weight lamp is suspended by two springs AB and AC. Determine the stretch in each spring in the given equilibrium position. If $AB = 4\text{m}$, $AC = 3.4\text{ m}$, determine the un-deformed length of each spring.

