# Statics, MATH 2610
Midterm, Fall 1998

NAME _____ STUDENT NUMBER _____

SHOW ALL WORK!!! Partial credit will only be given for answers which are *partially correct!* Be clear and convince me that you understand what is going on. Use the style of problem solution discussed in class.

1. The bar in the figure below exerts a 140-N force **F** on its supports at A. The force is parallel to the bar and points towards B. Express **F** in terms of scalar components. (20 points)
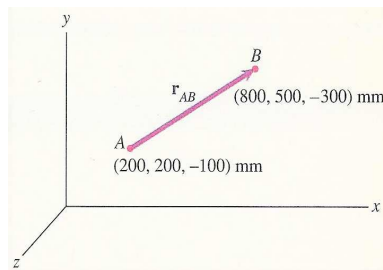
2. The automobile engine block in the figure below is suspended by a system of cables. The mass of the block is 200 kg. What are the tensions in cables AB and AC? (20 points)
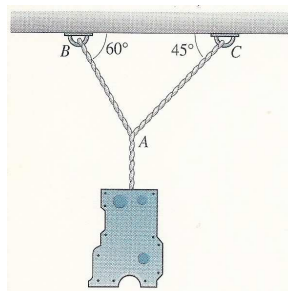
3. What is the moment of the force **F** about the bar BC in the figure below? (20 points)
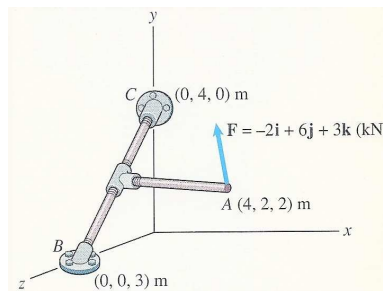
4. Consider the beam below. Draw the free-body diagram and determine the reactions at the supports. (40 points)