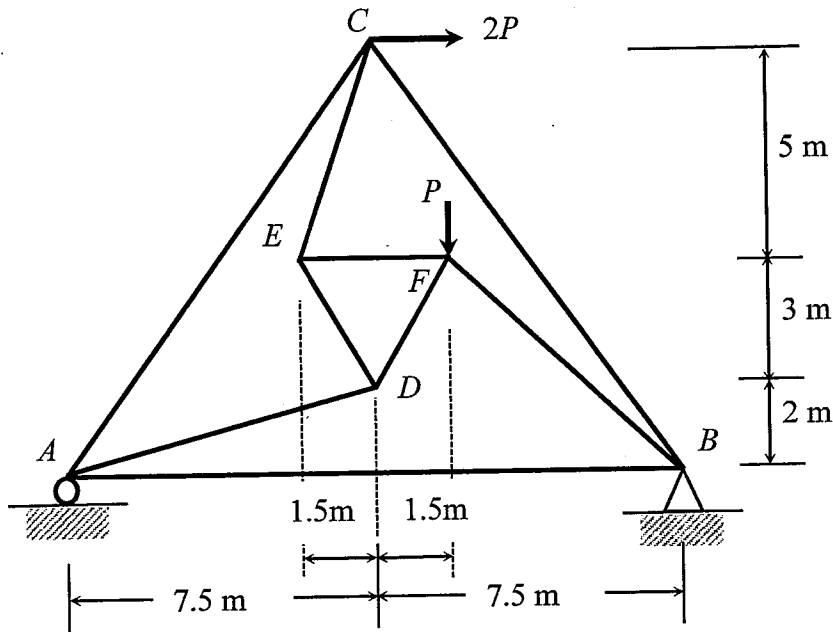
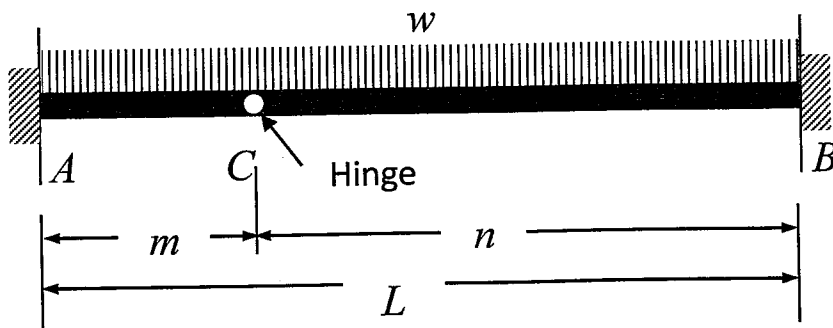


【可使用計算機】*作答前請先核對試題、答案卷(試卷)與准考證之所組別與考科是否相符!!

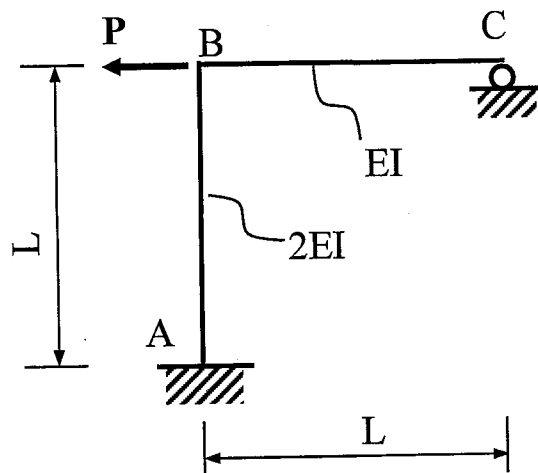
1. Determine the forces in members AC 、 AD and DF of the truss shown in the following figure. (25%)



2. A fixed-ends beam subjected to a uniform load w , please determine the fixed-end moments, M_A and M_B , by the method of consistent deformations. Assume constant EI . (25%)



3. A frame is as shown. Using **slope-deflection method**, (a) calculate the displacement and rotation at point B (20%); (b) draw the deflected shape of the frame. (5%)



4. A beam is subjected to a concentrated load $P=20$ at point B and a rotational settlement of 0.02 rad at point A. Using **matrix direct stiffness method**, calculate the displacement and rotation at point B. (25%)

