

淡江大學 102 學年度碩士班招生考試試題

系別：土木工程學系

科目：結構學 (含工程力學)

考試日期：3 月 10 日 (星期日) 第 2 節

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1. Find the horizontal and vertical deflections at c of the cantilever beam shown in Fig. 1. The load is perpendicular to the beam. $E = 4000 \text{ksi}$, $I = 500 \text{in}^4$. (25%)

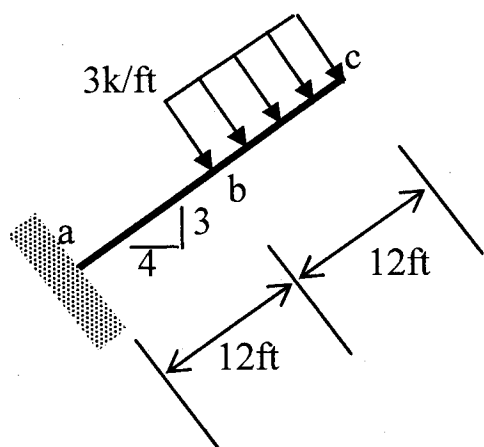


Fig. 1

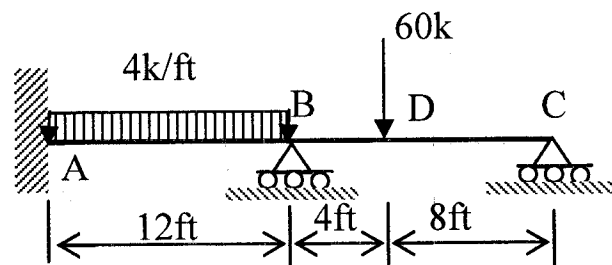


Fig. 2

2. Find the reactions at the supports for the continuous beam shown in Fig. 2, then draw the moment diagram. EI is constant. (25%)
3. Determine the force in member bd of the truss shown in Fig. 3. EA is constant. (25%)

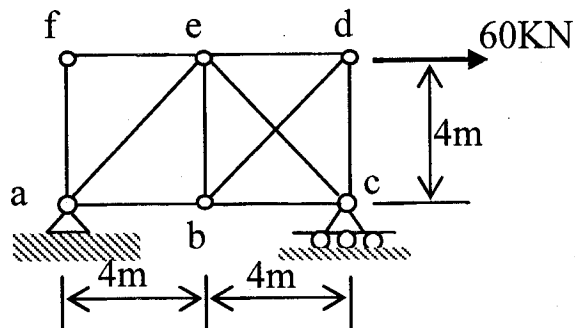


Fig. 3

4. Determine the reactions at the supports for the frame shown in Fig. 4, then draw the moment diagram for each member. EI is constant. (25%)

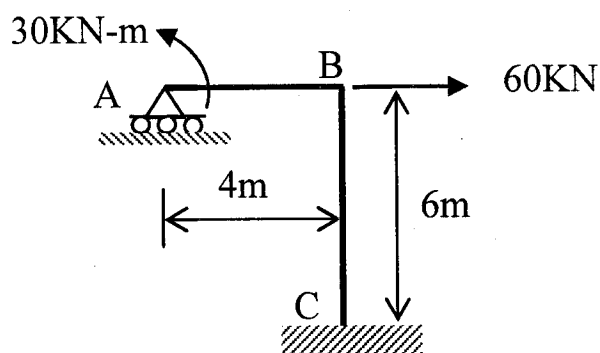


Fig. 4