

UNIVERSITY OF SASKATCHEWAN
 College of Engineering
 CE 463.3: Advanced Structural Analysis

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LAB. NO. 10

March 16, 2005

MARKS

PROBLEM NO. 1

- 15 (a) Draw the influence lines for members U_1U_2 , L_1L_2 and U_1L_2 of the truss shown in Fig. 1(a).
- 20 (b) Draw the influence line for moment at section 1-1 of the beam shown in Fig. 1(b). Now using your knowledge acquired in CE 317, find the maximum moment at section 1-1 due to the CL-625 Standard Truck loading shown. Assume two trusses carry two lanes.
- 05 (c) Then find the maximum force in bar U_1U_2 .
- 15 (d) Draw the influence line for moment at section 2-2 of the beam shown in Fig. 1(b). Then find the maximum force in bar L_1L_2 due to the CL-625 Standard Truck loading shown.
- 05 (e) Is there a way to find the maximum force in bar U_1L_2 ?

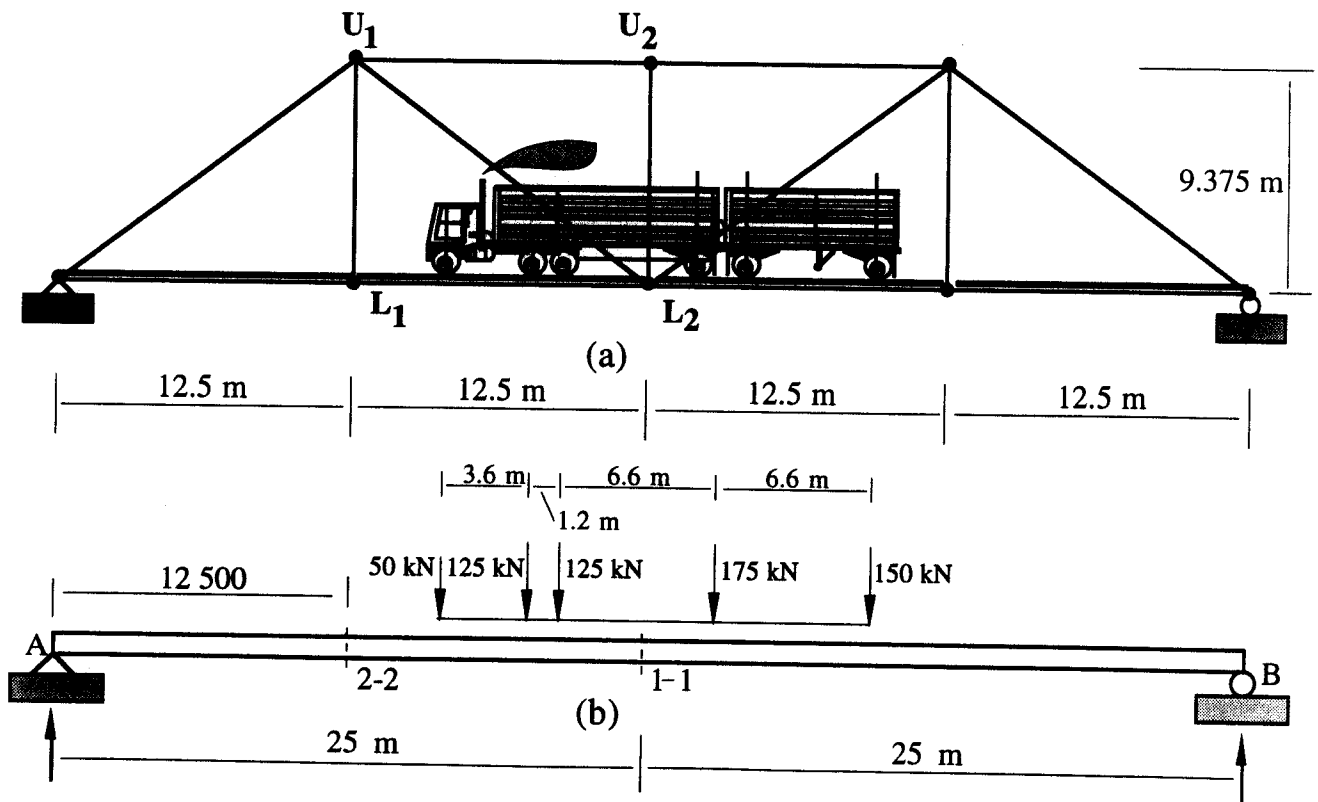
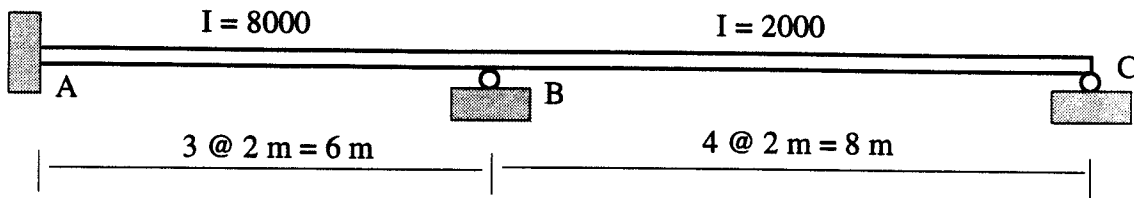


FIGURE 1

PROBLEM NO. 2

- 40 Draw influence lines, at an interval of 2 metres, of M_{AB} and M_{BA} for the continuous beam shown in Fig. 2.

**FIGURE 2**

Due: March 23, 2005