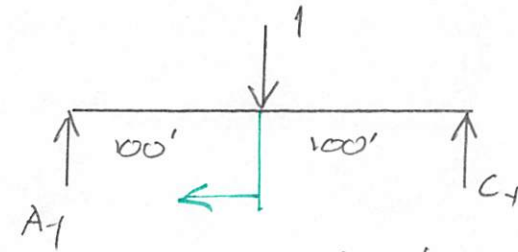
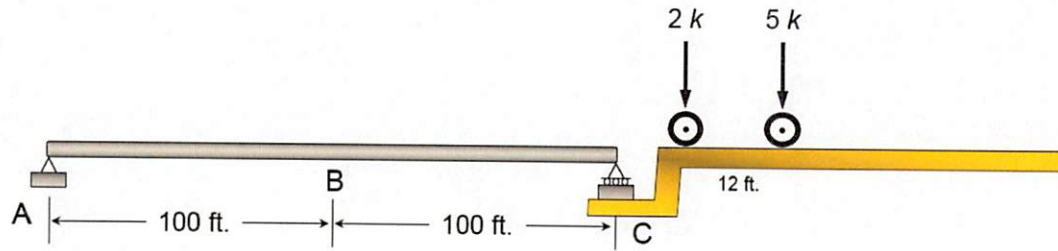


Example 6c-1: Determine the maximum moment created at point B in the beam below due to the wheel loads of a moving truck traveling from right to left.

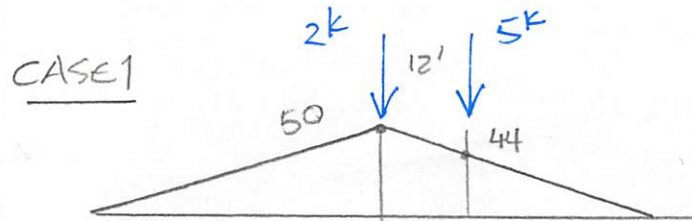
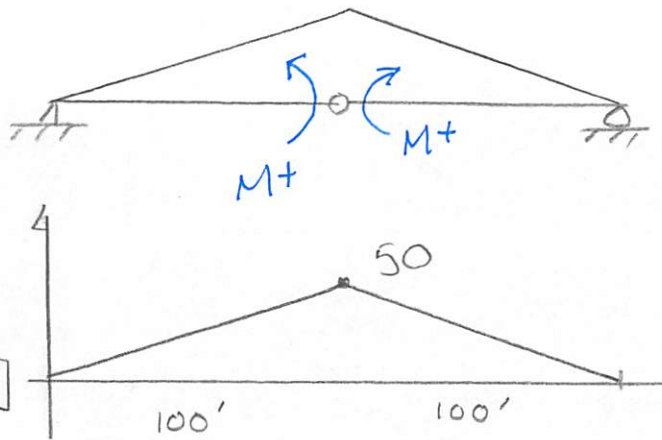


$$\sum M_C = 0 = 1(100') - A_y(200')$$

$$A_y = \frac{1}{2}$$

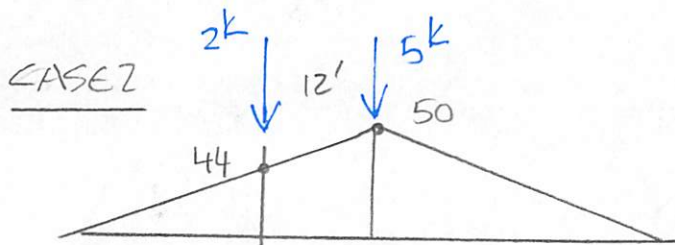
$$\sum M_{cut} = 0 = M_B - \frac{1}{2}(100')$$

$$M_B = 50'$$



$$\frac{50 \text{ ft}}{100 \text{ ft}} = \frac{1}{2}$$

$$M_B = 2k(50') + 5k(44') = 320 \text{ kft}$$



$$M_B = 2k(44') + 5k(50') = \underline{\underline{338 \text{ kft}}}$$