

ES120 Spring 2018 – Section 7 Notes

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Problem 1:

For the beam and loading shown, (a) determine the equations of the shear and bending-moment curves, (b) draw the shear and bending-moment diagrams.

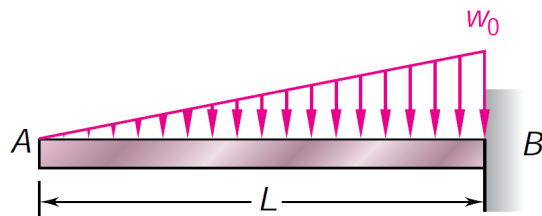
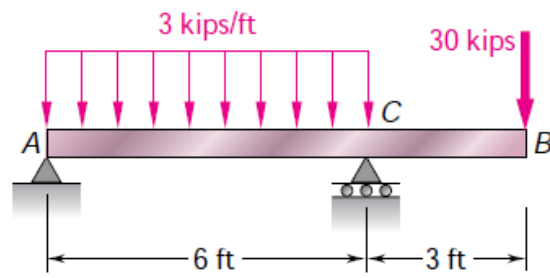


Figure 1

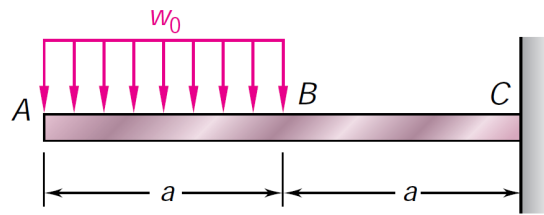
Problem 2:

Draw the shear and bending-moment diagrams for the beam and loading shown, and determine the maximum absolute value (a) of the shear, (b) of the bending moment.

**Figure 2**

Problem 3:

(a) Using singularity functions, write the equations defining the shear and bending moment for the beam and loading shown. (b) Use the equation obtained for M to determine the bending moment at point C and check your answer by drawing the free-body diagram of the entire beam.

**Figure 3**