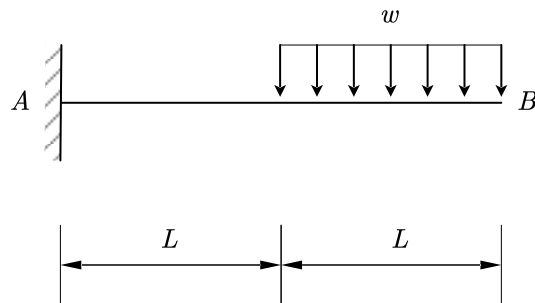


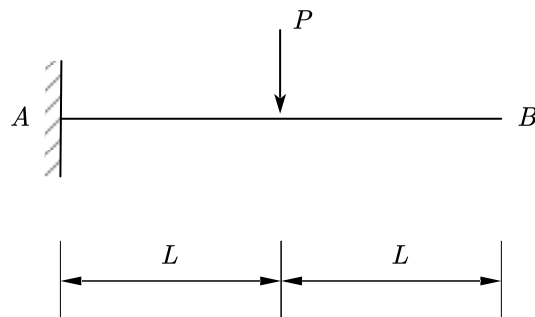
Homework #4

Problem 1: For a cantilever beam shown below:



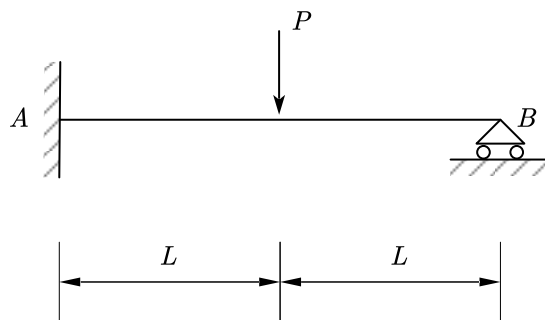
Use the *method of moment-area* to calculate the vertical displacement at point B , assuming the EI is constant along the beam.

Problem 2 For a cantilever beam shown below:

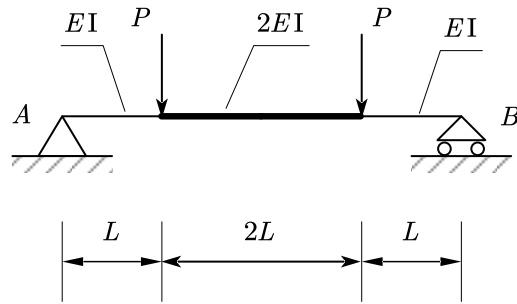


(1) Use the *method of moment-area* to calculate the vertical displacement at point B , assuming the EI is constant along the beam.

(2) Based on the results of (1), calculate the reaction force at point B for the following propped-cantilever beam, assuming the EI is constant along the beam:



Problem 3 For a simple supported beam shown below:



- (1) Use the *method of moment-area* to calculate the rotation at point A .
- (2) Use the *method of moment-area* to calculate the vertical deflection at mid-span.