Homework H35.A

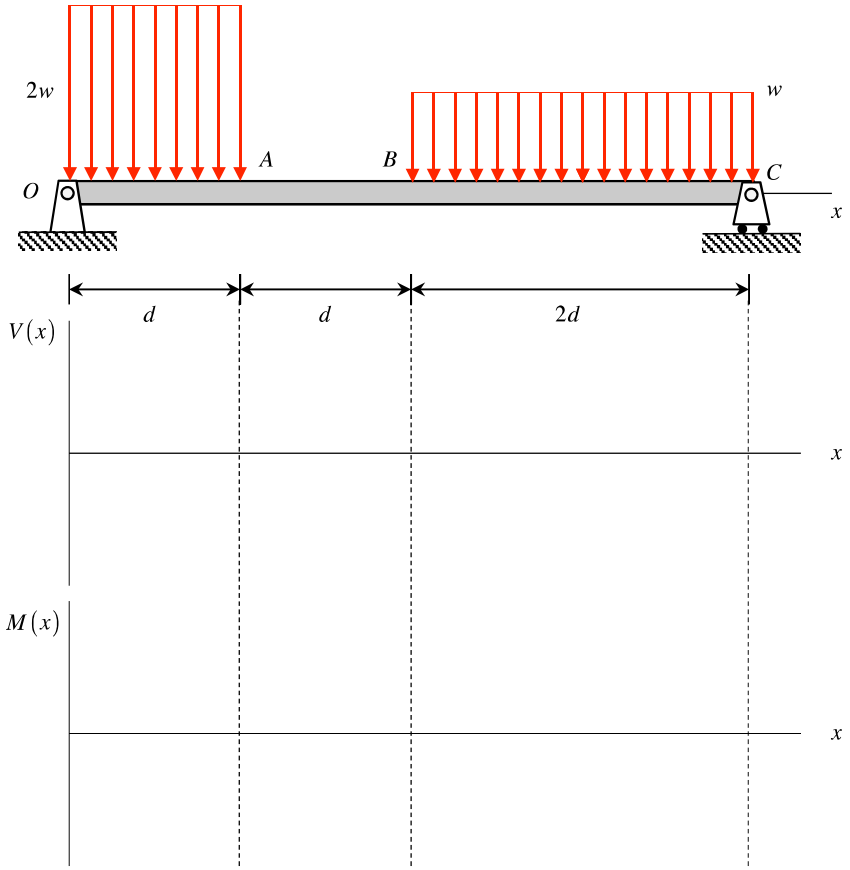
GIVEN: Consider the beam loaded as shown below.. The beam has a solid circular cross section with a radius of R.

FIND: For this problem:

a) Determine the location(s) for which pure bending exists on the cross section of the beam.

b) For the location(s) found in a) above, determine the maximum normal stress.

For this problem, use the following parameters: $d = 4$ ft, $w = 10$ kips/ft and $R = 3$ in.



Homework H35.B

GIVEN: Consider the beam loaded as shown below.. The beam has a solid square cross section with cross-section dimensions b x b.

FIND: For this problem:

a) Determine the location(s) for which pure bending exists on the cross section of the beam.

b) For the location(s) found in a) above, determine the maximum normal stress.

For this problem, use the following parameters: $d = 2$ m, $w = 10$ kN/m and $b = 100$ mm.

