

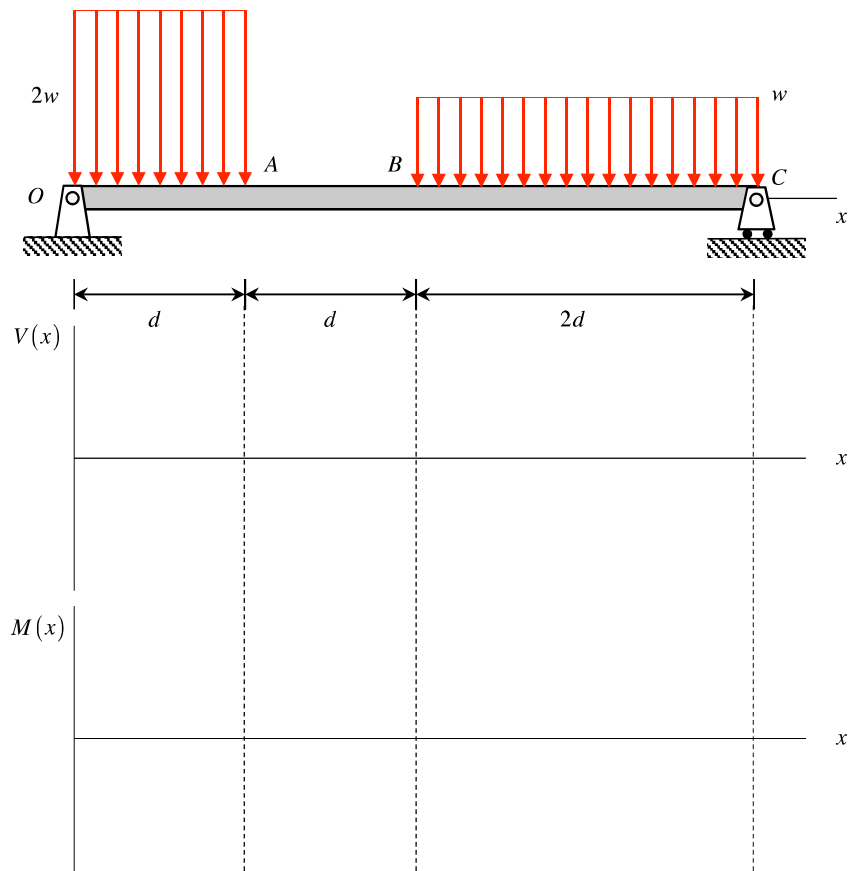
Homework H35.A

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:

- Determine the location(s) for which pure bending exists on the cross section of the beam.
- 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 $b \times b$.

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.

