



QUIZ 5

20 February 2015
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Ad, Soyad: _____
No: _____

Problem: Beam DCE has a box cross section. The dimensions are shown.

- a) Draw the shear and moment diagrams for the beam. (Hint: The 160 kN load must be replaced by equivalent loadings at point C on the axis of the beam.)
- b) Determine the absolute maximum bending stress in the beam and factor of safety.
- c) For the critical point of the beam, determine the stress at points A and B.

Given: $\sigma_{all} = 110 \text{ MPa}$

