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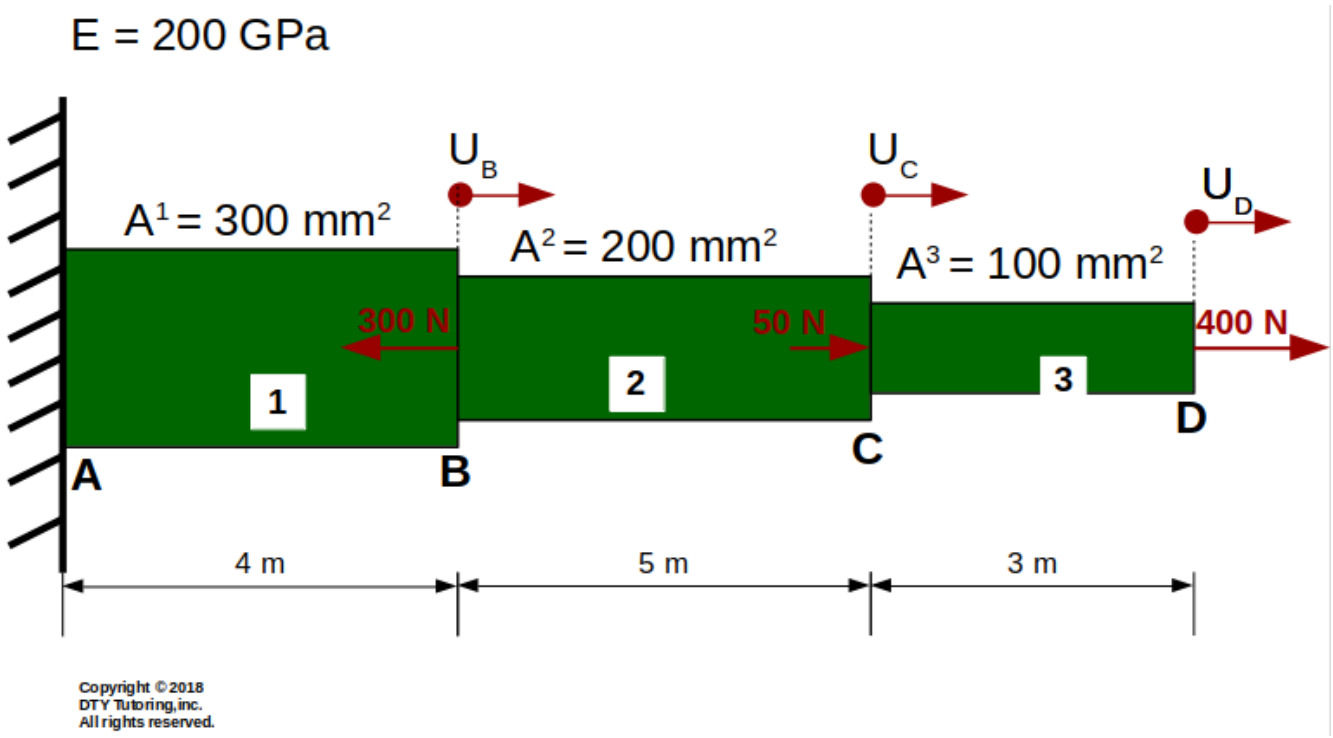
Date: 12th April 2019

The axial structure depicted below consists of circular steel members of different areas. Compute the following:
(a) *the stresses in each member, and indicate whether the stresses are tensile (T) or compressive (C),*
(b) *the axial displacement at B (U_B), at C (U_C) and at D (U_D).*



Answers (refer to solutions for detail)

(a) σ_1 = 0.50 Gpa (T) , σ_2 = 2.25 Gpa (T), σ_3 = 4 GPa(T)

(b) U_B = 10 mm, U_C = 66.3 mm, U_D = 126.3 mm