
PROBLEM S1-1 QUESTION**Determining Material Properties From Test Results**

The (uniaxial) tensile stress data listed in Table 1 are for a cylindrical coupon of initial length and diameter, 50 mm and 7 mm, respectively. Calculate the following parameters:

- Young's Modulus, E (GPa)
- The Yield Stress, S_y (MPa)
- The Ultimate Stress S_u (MPa)

Table I

<u>L (mm)</u>	<u>Force (kN)</u>
50.000	0.00
50.012	2.00
50.025	4.00
50.038	6.00
50.057	8.00
50.131	9.99
50.501	11.90
52.113	13.45
55.467	13.89
69.751	12.43
129.415	7.44