

CONCORDIA UNIVERSITY
Faculty of Engineering and Computer Science
ENGR 242/4 Statics, Section J
Test #2

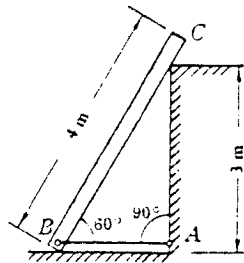
Marks

Attempt all questions, only calculators permitted.

Time: 60 Minutes

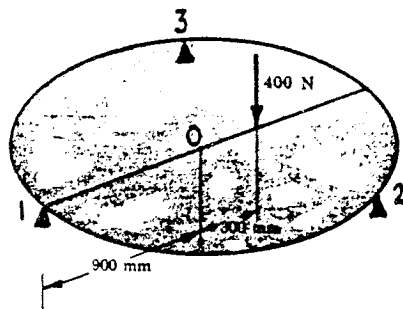
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- 1) Determine the tension in the cable AB which holds the 9-Kg post BC from sliding. Assume all surfaces are smooth.



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- 2) The circular table 1800 mm in diameter supports a load of 400 N located on a diameter through the support 1 and 300 mm from the center on the opposite side from support 1. Supports 1, 2 and 3 are equally-spaced simple supports. Determine the reactions developed on these supports.



*Pin connection?
2 load 400 N?*

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- 3) A semicircular area is removed from the trapezoid as shown. Determine the y coordinate of the centroid of the remaining shaded area. Tables are not available for this problem.

