





Information Technology

2010/2011

Homework Assignment

Prepare a report on the following problem:

A solid shown in figure below consists in a cube and a hemisphere. Given that the edge length of the cube "a" and the hemisphere radious "R" change according to the formulae:

$$a(t) = 3 + 0.3t^2$$
,
 $R(t) = 0.1t^2 + \sin(4t)$

draw the function of the solid volume V(t) and solid surface S(t) for the parameter $t \in [1, 3\pi]$.



The report should contain (at least):

- a) Author's name, matric. card number.
- b) The formulae for V(t) and S(t).
- c) The graphs of the functions V(t) and S(t).
- d) The source code of all Octave scripts used for preparing the report.

Important

- Reports should be prepared as PDF files and sent by e-mail to the respective tutor.
- For grading information, hints and additional materials please visit http://www.l5.pk.edu.pl/ ~putanowr/iten .

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