task_ic9pioiu0notvwfp_with_calculation

Student Group

First Name	Surname	Matrikel Nr.

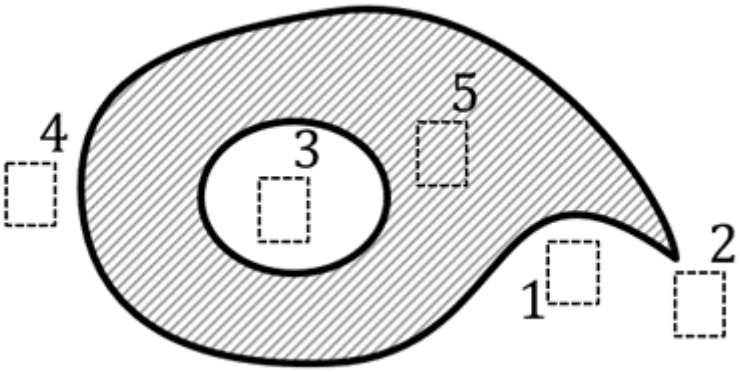
Table of Contents

electrostatic, electric field strength, exam ee2 SS2022

Exercise E4 Electrostatics II
(written test, approx. 10 % of a 120-minute written test, SS2022)

The figure below shows an arrangement of ideal metallic conductors (gray hatched) charged up to $q=+1 ~\rm nC$.
In white a dielectric (e.g. vacuum) is shown.
Several designated areas are shown by dashed frames and numbers x, which are partly inside the object.

Arrange the designated areas clearly according to ascending field strengths $|\vec{E}_x |$ (absolute magnitude)!
Indicate also, if designated areas have quantitatively the same field strength.



Result

> $|E_3|=|E_5|=0 < |E_1| < |E_4| < |E_2|$