

# task\_ic9pioiu0notvwfp\_with\_calculation

## Student Group

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electrostatic, electric field strength, exam ee2 SS2022

## Exercise E2 Electrostatics II

(written test, approx. 10 % of a 120-minute written test, SS2022)

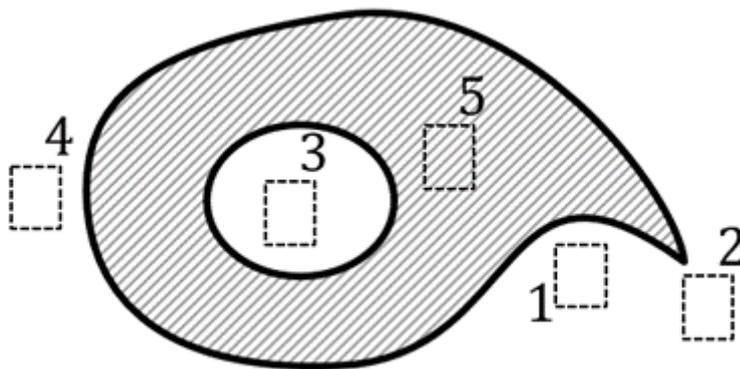
The figure below shows an arrangement of ideal metallic conductors (gray hatched) charged up to  $q = +1 \text{ nC}$ .

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

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

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