

Physics 23 Problem Set #5

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Due Friday, Oct. 24, 2003

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1. The sphere of radius a in Fig. 1 is filled with positive charge at uniform density ρ . Then a smaller sphere of radius $a/2$ was carved out, as shown in the figure, then left empty. What are the direction and magnitude of the electric field at A ? At B ? (Hint: use superposition).
 2. Problem 23-49, pp. 729-730 of your text.
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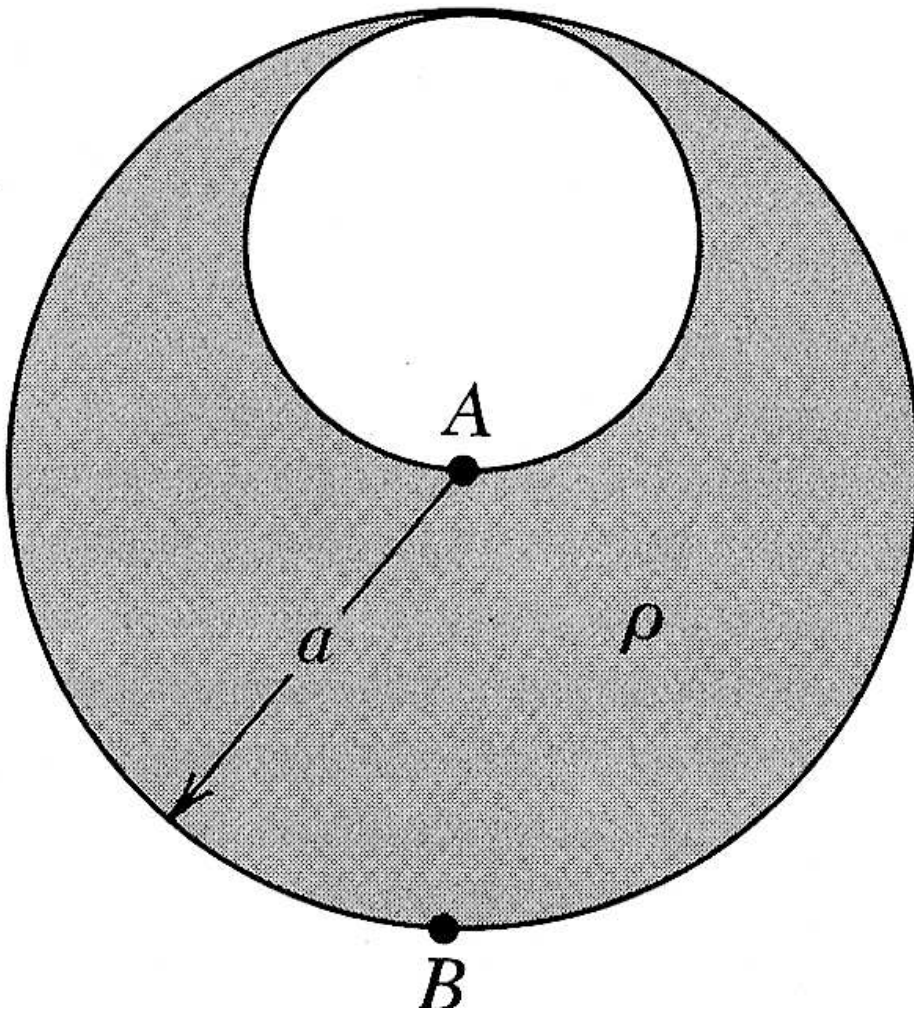


Figure 1: Figure for Problem 1.