

Summary Sheet for Gravitational & Electric Fields Report

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Name _____

Instructions. Write the RESULTS of your calculations on this cover sheet. The item numbers on this sheet match the item numbers in the article.

- Your report should be neatly written on engineering pad paper or typed (more difficult).
- Your opening paragraph should condense the material in Items #1 through #4 from the article. State specifically how you plan to calculate the requested gravitational and electric field vectors.
- When you present your calculations, use complete sentences. The reader should NOT need the article in order to understand your report. Include small sketches, if possible.

Scoring:

Item	Your Score	Possible
Opening Paragraph		10
Presentation & Neatness (paper, grammar, etc.)		20
Accuracy of Results		70
TOTAL		100

List the specific results on the next page!

List Specific Results Here:

(#5) In your report, show that the horizontal component of $\mathbf{E}(1, 0)$ has length $2k\sigma$ [not here].
What is the horizontal component of $\mathbf{E}(a, 0)$, for $a > 0$?

(#6) Calculate the electric field vector $\mathbf{E}(0, 0, a)$. Just give the result here.

(#7) Calculate the electric field vector $\mathbf{E}(0, 0, 1)$. This first answer should have σ in it.

Now substitute in $\sigma = \frac{Q}{\pi}$ and the answer depends on Q .

Calculate the electric field vector $\mathbf{E}(0, 0, a)$.

(#8) Calculate the electric field vector $\mathbf{E}(0, 0, 1)$. It should depend on σ .

Calculate the electric field vector $\mathbf{E}(0, 0, a)$. It should depend on σ .

(#9) Approximate the gravitational field vector $\mathbf{F}(0, 0, 2)$. It should point downward.