Amber Tec

Asynchronous Activity 1, Worksheet

Prof. Jordan C. Hanson

February 26, 2021

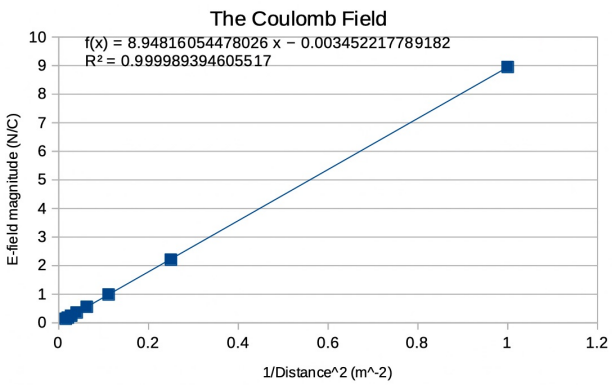
1 How to Submit this Worksheet

1. Download this PDF to your device.
2. Complete the procedure below.
3. Scan your document into a PDF using a Smartphone app, or simply a photo. One example app is SimpleScanner. Websites also exist to convert jpg to PDF format (e.g. `https://smallpdf.com/jpg-to-pdf`).
4. Upload your worksheet PDF to Moodle via the submission link.

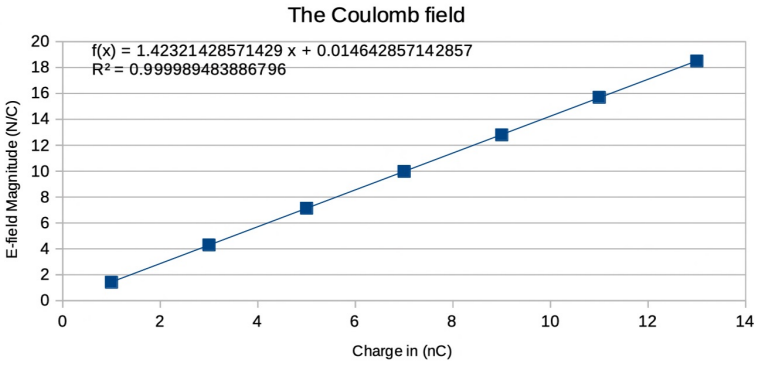
2 The Procedure

Repeat the procedure performed in the tutorial videos on Moodle: *Asynchronous Lesson 1, parts 1 and 2.* However, choose your own distances in the $\vec{E}$ vs. r calculation, and your own charge values in the $\vec{E}$ vs. q calculation. Graph your results below, and label the axes of the graphs with the correct units.

$\vec{E}$ vs. r calculations



$\vec{E}$ vs. q calculations



Distance (m)
1
2
3
4
5
6
7
8

1/distance^2 (m^{-2})	E-field (N/C)
1	8.95
0.25	2.21
0.1111111	0.99
0.0625	0.56
0.04	0.36
0.027778	0.25
0.02041	0.18
0.0156	0.14

Charge (nC)	E-field (N/C)
1	1.42
3	4.3
5	7.14
7	9.98
9	12.8
11	15.7
13	18.5