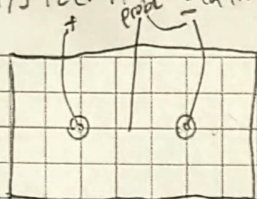


Dipole:

Alvin Magaña

Placed two "point charges" at ± 7 cm on the x-axis ± 0.1 (cm)

x-position

potential (V)

 $V_a = 0.00$ ± 0.01 $V_b = 15.55$

(cm)

position

potential (V)

-13	4.99
-11	4.70
-9	4.28
-5	4.77
-3	5.92
-1	6.90
0	7.36
1	7.90
3	8.84
5	10.15
9	10.80
11	10.20
13	10.01

(0,0)	7.36
(1.5, -3)	7.90
(1,0)	7.90
(1.5, -3)	7.90
(2.25, -6)	7.90
(3, -9)	7.90
(3.25, -12)	7.91
(3, 0)	8.84
(4.5, -4)	8.84
(6, -6.5)	8.84
(8.25, -9)	8.84
(10.25, -11)	8.84
(5, 0)	10.15
(7, -1.9)	10.15
(9.75, 0)	10.15
(16, 0)	9.55
(14, -3)	9.55
(11, -4)	9.55
(7, -3.25)	9.55
(5, -1.5)	9.55
(4.75, 0)	9.55

y-position (cm)

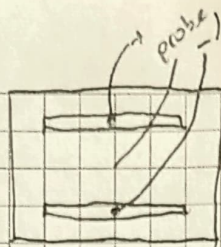
potential (V)

-10	7.94
-5	7.94
0	7.45
5	7.34
10	7.25

 $\chi^2 = 2.8903$
206756

Parallel Plates

Two plates, 4 edges $y = \pm 6$ cm from origin



y-position (cm)	potential (V)
-12	13.55
-10	13.70
-8	14.19
-4	10.70
-2	8.98
0	7.44
2	5.94
4	4.29
8	1.20
10	1.66
12	1.95

x-position (cm)	potential (V)
-15	7.22
-10	7.24
-5	7.28
0	7.45
5	7.49
10	7.56
15	7.62

position (cm)	potential (V)
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(0, -2) 8.98

(7, -2) 8.98

(10, -2.25) 8.98

(15, -2.75) 8.98

(0, -4) 10.70

(6, -4.25) 10.70

(10, -4.75) 10.70

(12.5, -6) 10.70

(16, -7.75) 10.70

(0, -12) 13.55

(2.5, -9) 13.55

(5.75, -7.5) 13.55

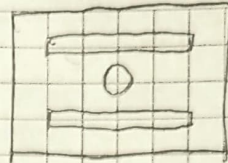
(0, -10) 13.70

(1, -8.25) 13.70

(3.75, -8.5) 13.70

PP & cylinder

Two plates, edges at $y = \pm 6 \text{ cm}$ from origin
cylinder centered at origin.



y-position (cm)	potential (V)
-5.5	12.39
-5	11.96
-4.5	11.45
-4	11.02
-3.5	10.65
-3	10.16
-2.5	~
-2	8.80
-1.5	8.11
-1	7.95
-0.5	7.80
0	7.58
0.5	7.40
1	7.22
1.5	6.95
2	6.78
2.5	~
3	5.09
3.5	4.70
4	4.15
4.5	3.70
5	3.04
5.5	2.86

Random points in cylinder	potential (V)
(-1, 1)	7.25
(-0.5, 1.5)	6.86
(-1.5, 1)	7.21
(-1, -1)	8.22
(-0.5, -1)	8.26
(-0.5, -1.5)	8.49

Position	potential (V)
(0, -3.5)	10.65
(6, -3.25)	10.65
(9, -4.5)	10.65
(16, -7.5)	10.65
(0, -5)	11.96
(5.5, -5.5)	11.96
(9.75, -7)	11.96
(11.5, -11)	11.96
(3, -1)	8.56
(8, -1.25)	8.56
(13, -1.5)	8.56
(12, -2)	9.71
(8, -3)	9.71
(16, -4.5)	9.71