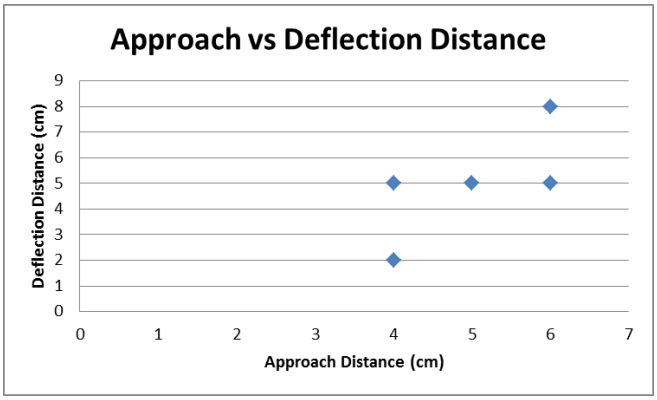
Data Sheet #1 Summary

From Section 3.2 Interaction of Two U-Tapes:

Observation	Approach Distance (cm)	Deflection Distance (cm)
1	4	5
2	4	2
3	6	8
4	5	5
5	6	5



Data Sheet #2 Summary

1. What was the length of one of your pieces of tape?	0.21 m
2. What was the mass of one of your pieces of tape?	0.002 kg
3. What was the distance between your two tapes when one began to float above the others?	0.02 m
4. What was the magnitude of the gravitational force on the floating piece of tape?	0.0196 N 9.8 m/s^2 * 0.002 kg
5. What was the magnitude of the electric force on the floating tape?	0.0196 N mg=K*Q^2/Dd^2
6. Ignore air resistance. Assume a long tape as thought it were a point charge, with all the charge concentrated at the center of the long tape.	
• What was the approximate charge on the floating tape?	9.3x10^-5C See attached worksheet
• How many electrons (excess or deficiency does this charge represent?	5.82x10^14 Number = Q/e