**Chapter 1: Coulomb’s Law**

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| **Questions** | **Final Answers** |
| 1. Determine the electrostatic force between 2 free electrons separated by 0.2nm. | 5.76nN,  away from each other |
| 1. Determine the charge separation between 2 free electrons if they experience a repulsive force of . | 0.011nm |
| 1. A is placed midpoint between 2 charges of and +. If the separation between the and is 2.5m, determine the magnitude and direction of the electrostatic force experienced by the charge. | 0.0115N,  Towards charge |
| 1. A is placed midpoint between 2 charges of and , which are separated by is 2.5m, determine the magnitude and direction of the electrostatic force experienced by the charge. | 0.0922N,  Towards charge |
| 1. Three point charges are placed on the x-axis: at , at and at . Determine the Coulomb force experienced by the charge. | 3.735N,  In the +x direction. |
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