How the force between two charges varies—based on Coulomb's Law:

$$F = \frac{-kq_1q_2}{r^2}$$

| | $q_1$ | $q_2$ | $r_2$ | $\dfrac{F_2}{F_1}$ |
|---|---|---|---|---|
| a) | 3.0 times bigger | same | same as $r_1$ | |
| b) | same | 2.0 times bigger | same | |
| c) | 3.0 times bigger | 2.0 times bigger | same | |
| d) | same | same | 3.0 times bigger | |
| e) | 2.0 times bigger | same | 3.0 times bigger | |
| f) | same | same | $\frac{1}{3}$ of $r_1$ | |
| g) | 2.0 times bigger | same | $\frac{1}{3}$ of $r_1$ | |
| h) | | same | same | 2.0 |
| i) | same | same | | 2.0 |
| j) | same | same | | 25 |