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	$\frac{F_2}{F_1}$
a)	3.0 times bigger	same	same as r_1	3
b)	same	2.0 times bigger	same	2
c)	3.0 times bigger	2.0 times bigger	same	3(2)=6
d)	same	same	3.0 times bigger	$1/3^2 = 1/9$
e)	2.0 times bigger	same	3.0 times bigger	$2(1/3^2) = 2/9$
f)	same	same	$\frac{1}{3}$ of r_1	$(1/(1/3))^2 = 9$
g)	2.0 times bigger	same	$\frac{1}{3}$ of r_1	$2*(1/(1/3))^2 = 18$
h)	2.0 times bigger	same	same	2.0
i)	same	same	Flip the force ratio and square root it: $r_2 = \sqrt{\frac{1}{2}}\, r_1 = 0.707\, r_1$	2.0
j)	same	same	Flip the force ratio and square root it: $r_2 = \sqrt{\frac{1}{25}}\, r_1 = 0.2\, r_1$	25