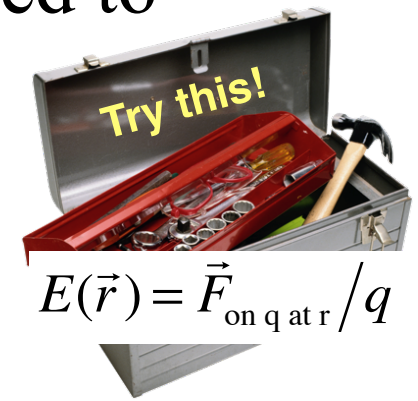
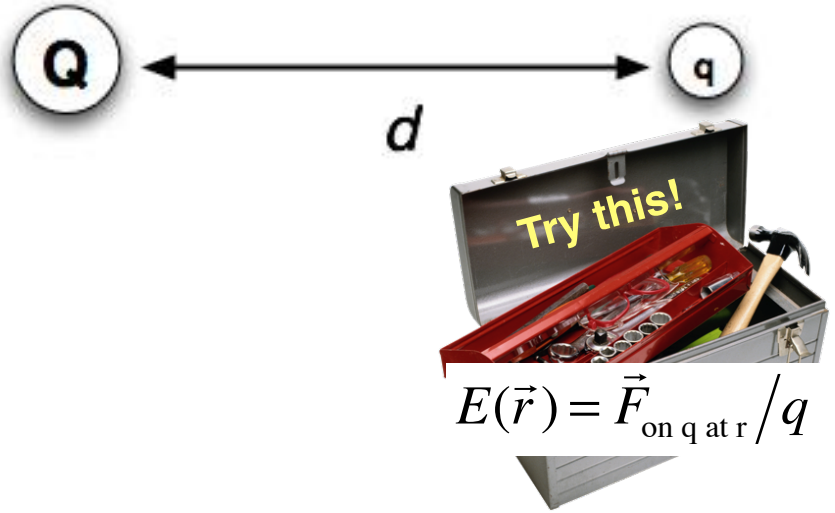
The electric field at a particular point in space

1. Depends only on the magnitude of the test charge used to measure it.
2. Depends only on the sign of the test charge used to measure it.
3. Depends on both the sign and magnitude of the test charge used to measure it.
4. Does not depend on the test charge used to measure it.
5. None of the above.



A test charge, q, is a distance d from a charge Q as shown. It feels an electric field, E_0. If q were replaced by a charge $-3q$, the electric field on it would

1. Change to $-3E_0$
2. Change to $-E_0/3$
3. Not change
4. Change to $3E_0$
5. Change to $E_0/3$
6. Something else



A test charge, q, is a distance d from a charge Q as shown. It feels an electric force, F_0. If q were replaced by a charge -3q, the electric force on it would

1. Change to $-3F_0$
2. Change to $-F_0/3$
3. Not change
4. Change to $3F_0$
5. Change to $F_0/3$
6. Something else