

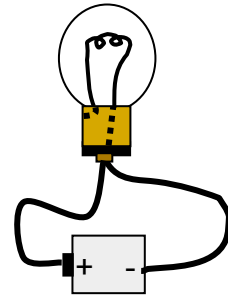


STUDENT ID: \_\_\_\_\_

NAME: \_\_\_\_\_

3. I hook up a battery and a bulb with two wires as shown below. Which of the following statements are true? (Assume that the wires are real and have some small amount of resistance!) – How do you know?

- i. Current will not flow.
- ii. The wires will heat up.
- iii. The voltage at the (+) side of the battery is the same as the voltage at the base of the bulb.



Consider the following 5 arrangements of charges. When thinking about these arrangements, you should be sure you understand how Coulomb's Law works to tell you how the force the puck feels under each of the circumstances will differ.

4. List all the scenarios where the 'puck' feels the same magnitude of force, and why:

