Name_____

Favorite Animated Movie_____

Show your work, and circle your answers and use sig figs to receive full credit.

When you have finished this, go to the website and check your answers. If you got a problem wrong, cross it off on the front, and do it correctly on the back.

1. What is the force on, and the electric field surrounding (magnitude and direction) an electron if it is accelerated upward at 5.20×10^{15} m/s/s?

2. A 1.50-gram object is suspended against gravity between two horizontal parallel plates that are 5.20 cm apart. What charge does the object have if this requires 537 V to accomplish? If the top plate is negative, is the charge positive or negative?

3. Two point masses have a force of attraction of 2.30×10^{-12} N when they are separated by 56.0 cm. What is their separation if the force of attraction is 5.80×10^{-12} N?

4. Find the net force and direction on mass **A** and mass **B**:

| (A) | 6.30 m | (B) | 8.50 m | (C) |

2.60×10^6 kg 1.80×10^6 kg 3.70×10^6 kg
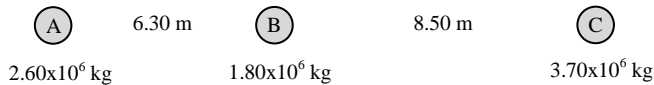
A = _____

B = _____

5. Each grid line is a meter. Charge A is +160. μC, and charge B is -210. μC, and C is +630. μC. **Calculate the force on charge A**. Draw the force vector and label its magnitude and direction.