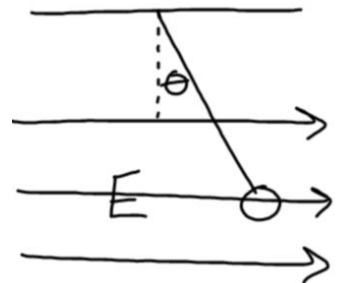


Day #1 Blizzard Bag

Show Work in organized manner.

1. A small 2.0 g sphere is suspended by a 20 cm string in a uniform electric field of  $1 \times 10^4$  N/C as shown below.
  - a. What is the sign of the charge of the sphere? Explain how you know.



- b. Draw a force diagram for the sphere.
  - c. If the sphere is held at the 15 degree angle by the electric field, what is the magnitude of the charge on the sphere?