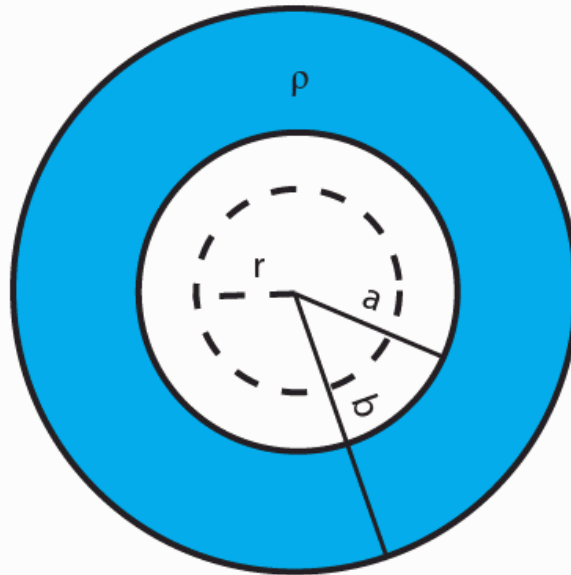


# Checkpoint 2

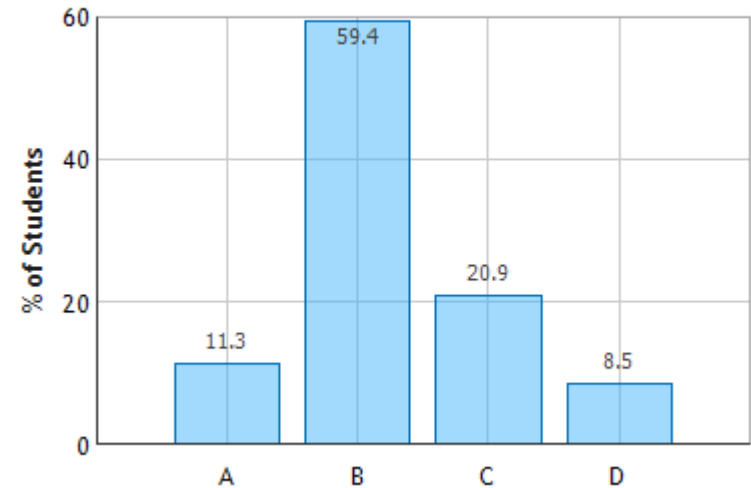


4) A charged spherical insulator shell has inner radius  $a$  and outer radius  $b$ . The charge density on the shell is  $\rho$ .



What is magnitude of  $E$  at dashed line ( $r$ )?

Charged Spherical Shell: Question 1 (N = 862)



- A)  $\frac{\rho}{\epsilon_0}$  "It is  $\rho/\epsilon_0$  because that is the e-field due to the outside of the sphere and the inside must be equal to that in magnitude."
- B) **Zero** "Within  $r < a$  there is no charge enclosed."
- C)  $\frac{\rho(b^3 - a^3)}{3\epsilon_0 r^2}$  "units work out."
- D) None of above "its something that is  $1/r$ ."