

A sphere of radius $R = 0.335$ m and uniform charge density 453 nC/m³ lies at the center of a spherical, conducting shell of inner and outer radii $3.50R$ and $4.00R$, respectively. If the conducting shell carries a total charge of $Q = 66.7$ nC, find the magnitude of the electric field at the given radial distances from the center of the charge distribution.

$0.610R$: N/C

$3.75R$: N/C

$2.95R$: N/C

$5.70R$: N/C

