Calculation

neutral conductor

r_2

$+3Q$

r_1

x

y
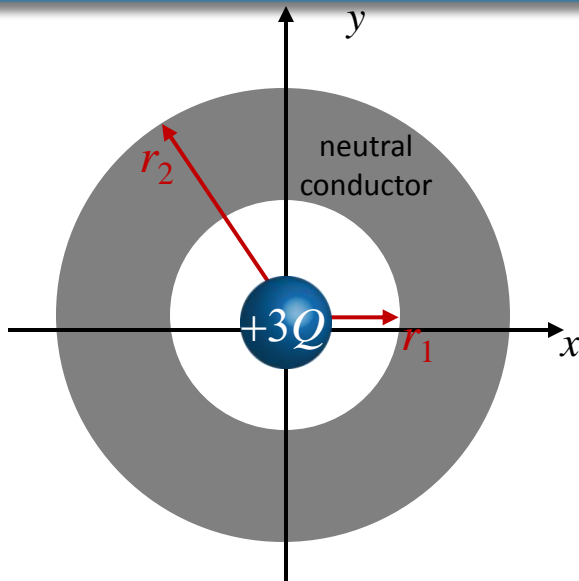
Point charge $+3Q$ at center of neutral conducting shell of inner radius r_1 and outer radius r_2.

a) What is E everywhere?

First question: Do we have enough symmetry to use Gauss' Law to determine E?

Yes, Spherical Symmetry (what does this mean???)

Magnitude of E depends only on R

A)   Direction of E is along $\hat{x}$

B)   Direction of E is along $\hat{y}$

C)   Direction of E is along $\hat{r}$

D)   None of the above