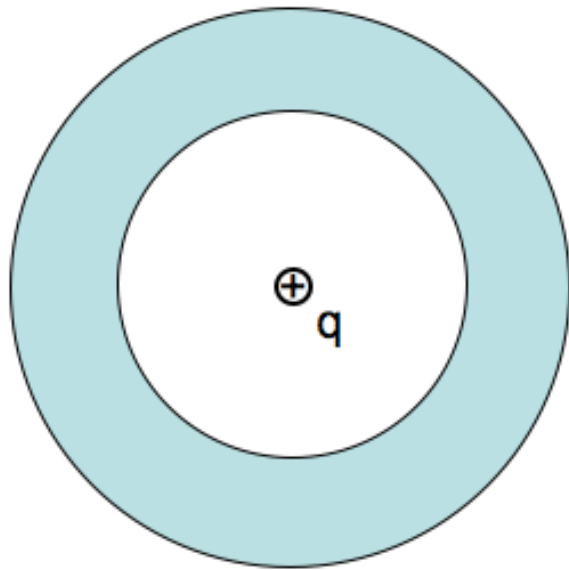


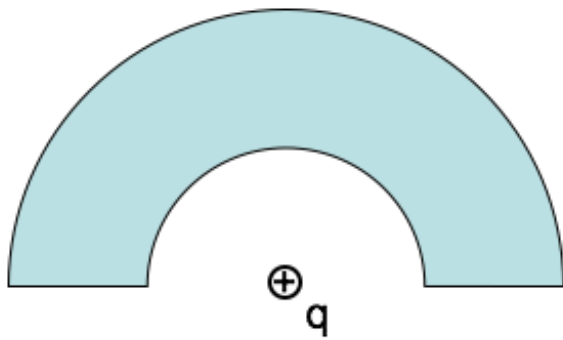
A point charge $+q$ is placed at the center of a neutral, linear, homogeneous, dielectric teflon shell. Can \mathbf{D} be computed from its divergence?



$$\oint \mathbf{D} \cdot d\mathbf{A} = Q_{free}$$

- A. Yes
- B. No
- C. Depends on other things not given

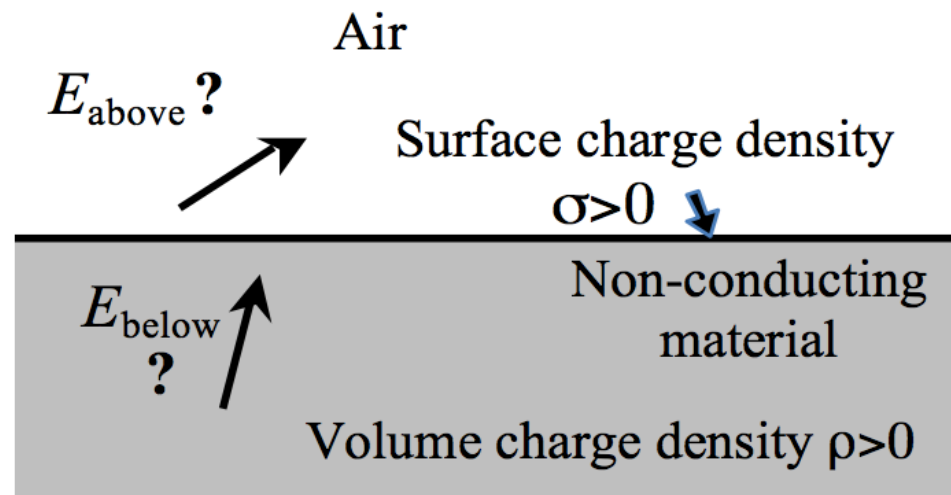
A point charge $+q$ is placed at the center of a neutral, linear, homogeneous, dielectric **hemispherical** shell. Can **D** be computed from its divergence?



$$\oint \mathbf{D} \cdot d\mathbf{A} = Q_{free}$$

- A. Yes
- B. No
- C. Depends on other things not given

BOUNDARY CONDITIONS



WHY ARE THESE BOUNDARY CONDITIONS USEFUL?

