Answer on Question #46224, Physics, Electromagnetism

Which of the following is not true about the electric field intensity \vec{E} of a uniformly charged solid

sphere?

- a. \vec{E} is maximum at the surface of the sphere
- b. \vec{E} is directly proportional to the distance from the centre of the sphere
- c. \vec{E} decreases as a square of the distance from the surface of the sphere
- *d*. \vec{E} decreases as a square of the distance from the centre of the sphere.

Electric field intensity is inversely proportional to the square of the distance from the centre of the sphere if distance>radius:

$$E = \frac{kQ}{r^2}$$

Where r is a distance from the sphere center.

Inside the sphere, electric field intensity is 0. From listed statement, **b** and **c** are not true.