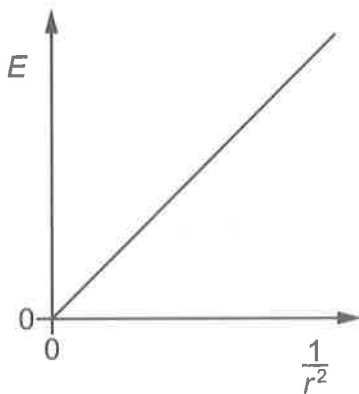


21 The variation of the electric field strength E with distance from a point charge is shown.



Which expression, using the gradient of the graph, is equal to the magnitude of the charge?

A $4\pi\epsilon_0 \times \text{gradient}$

B $\frac{4\pi\epsilon_0}{\text{gradient}}$

C $4\pi\epsilon_0 \times \sqrt{\text{gradient}}$

D $\frac{4\pi\epsilon_0}{\sqrt{\text{gradient}}}$

22 Two heating elements X and Y of a domestic fan heater are made of wire of the same resistivity