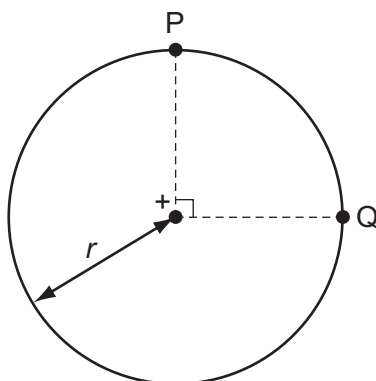


**27** The diagram shows two points P and Q which lie,  $90^\circ$  apart, on a circle of radius  $r$ .

A positive point charge at the centre of the circle creates an electric field of magnitude  $E$  at both P and Q.



Which expression gives the work done in moving a unit positive charge from P to Q?

- A** 0                      **B**  $E \times r$                       **C**  $E \times \left( \frac{\pi r}{2} \right)$                       **D**  $E \times (\pi r)$

**Space for working**