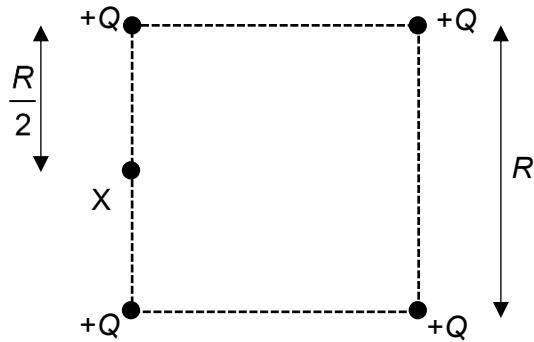


- 21** Four identical point charges are arranged at the corners of a square of length R as shown below.



What is the magnitude of the electric field strength E and the electric potential V at point X?

	E	V
A	$\frac{12}{5} \frac{Q}{\pi \epsilon_0 R^2}$	$\frac{2}{5} \frac{Q}{\pi \epsilon_0 R}$
B	$\frac{12}{5} \frac{Q}{\pi \epsilon_0 R^2}$	$\left(1 + \frac{1}{\sqrt{5}}\right) \frac{Q}{\pi \epsilon_0 R}$
C	$\frac{4}{\sqrt{5}^3} \frac{Q}{\pi \epsilon_0 R^2}$	$\frac{2}{5} \frac{Q}{\pi \epsilon_0 R}$
D	$\frac{4}{\sqrt{5}^3} \frac{Q}{\pi \epsilon_0 R^2}$	$\left(1 + \frac{1}{\sqrt{5}}\right) \frac{Q}{\pi \epsilon_0 R}$

