

2021 Ph H1 Q13

Section: Particles and Waves

Topic: Forces on Charged Particles

Brief summary of the question

Identify the correct electric field diagram between a positive point charge and a negative point charge.

Worked solution

Electric field lines show the direction a positive test charge would move.

Field lines start at positive charges and end at negative charges.

The correct diagram must have lines radiating outward from the + and curving toward the -, with symmetry about the axis joining them.

Final answer

B — correct diagram.

Revision tips

- Always draw field lines from + to -.
- Closer line spacing = stronger field.
- For two point charges, lines curve except along the line directly joining them.