

2023 Ph H1 Q10

Section: Particles and Waves

Topic: Forces on Charged Particles

Brief summary of the question

Identify the correct electric field pattern between two identical positively charged particles.

Worked solution

Field lines start at positive charges and end at negative charges — here, there are no negatives.

Between two like charges, the field lines repel and curve away from the central region.

The correct pattern is symmetric, and no lines join the two charges.

Final answer

D — correct repelling field pattern.

Revision tips

- Field lines never cross.
- For like charges: lines radiate outwards and bend away between the charges.
- Denser lines = stronger field.