15 A beam of plane-polarised light of intensity I is incident normally onto a polariser which has its polarising axis parallel to the incident beam.

A second beam of plane-polarised light of intensity I is incident normally onto the same polariser but with its plane of polarisation perpendicular to the polarising axis of the polariser. Both beams of light arrived in phase to each other.

The angle of polarisation for the polariser is rotated to 45°.

What is the intensity of the emergent beam?

A   0.250 I **B**   0.500 I **C** I **D**   2 I