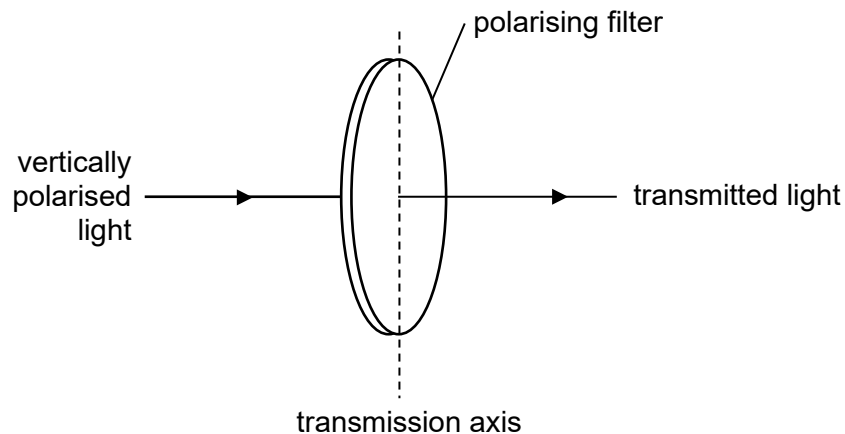


- 13** A beam of vertically polarised light is incident normally on a polarising filter. The filter is rotated such that it is always in a plane perpendicular to the beam of light. The polarising axis of the filter is initially vertical as shown.



The filter is first rotated clockwise by an angle of 30° and the transmitted light waves have intensity I . The filter is then rotated anticlockwise by an angle of 45° from its current position.

What is the new intensity of the transmitted light waves?

A $0.089I$

B $0.67I$

C $1.2I$

D $24I$