

**26** Two polarising filters are placed next to each other so that their planes are parallel.

The first polarising filter has its transmission axis at an angle of  $50^\circ$  to the vertical.

The second polarising filter has its transmission axis at an angle of  $20^\circ$  to the vertical. The angle between the transmission axes of the two polarising filters is  $30^\circ$ .

A beam of vertically polarised light of intensity  $8.0 \text{ W m}^{-2}$  is incident normally on the first polarising filter.

What is the intensity of the light that is transmitted from the second polarising filter?

- A** zero                      **B**  $2.5 \text{ W m}^{-2}$                       **C**  $2.9 \text{ W m}^{-2}$                       **D**  $6.0 \text{ W m}^{-2}$