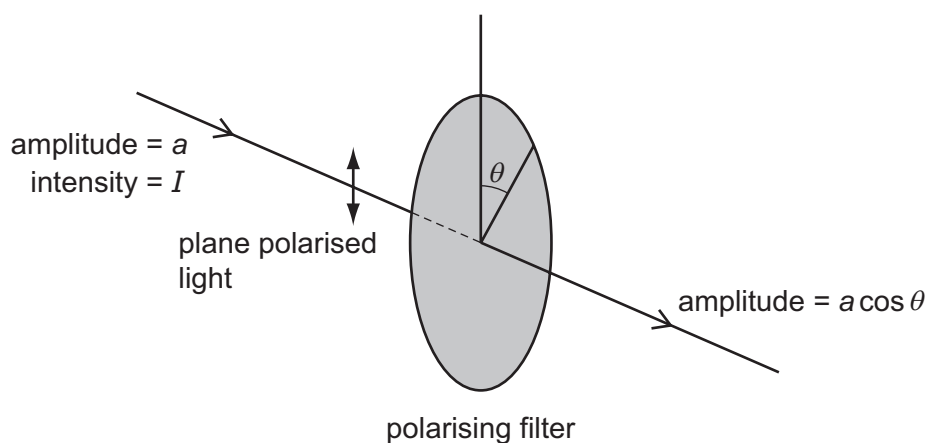


- 24** When plane-polarised light of amplitude  $a$  is passed through a polarising filter as shown, the amplitude of the light emerging is  $a \cos \theta$ .



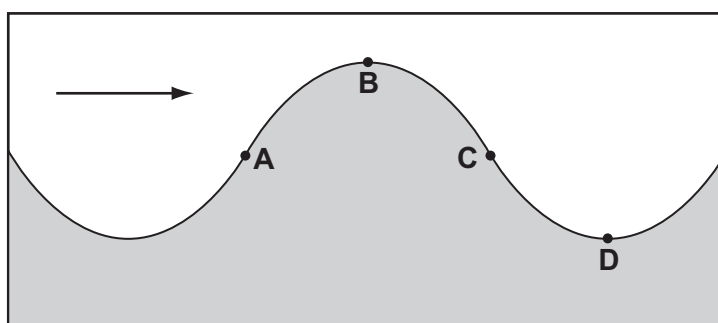
The intensity of the initial beam is  $I$ .

What is the intensity of the emerging light when  $\theta$  is  $60.0^\circ$ ?

- A**  $0.250 I$       **B**  $0.500 I$       **C**  $0.750 I$       **D**  $0.866 I$

- 25** The diagram shows a vertical cross-section through a water wave moving from left to right.

At which point is the water moving upwards with maximum speed?



**Space for working**