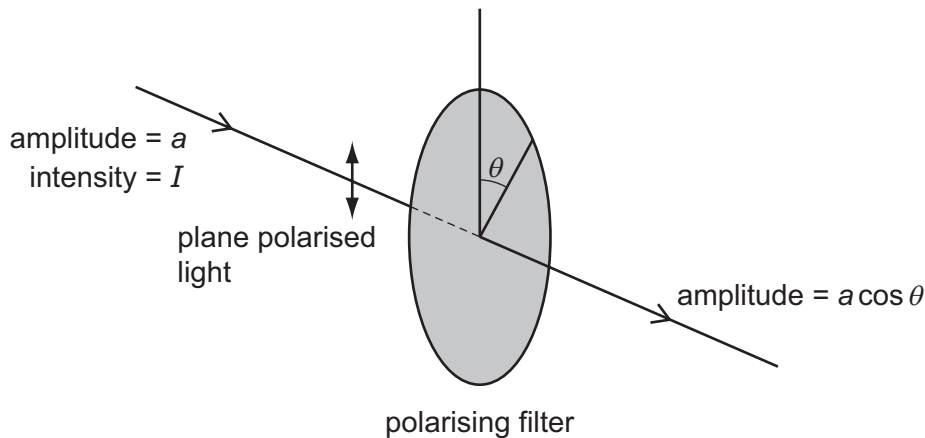25 When plane-polarised light of amplitude a is passed through a polarising filter as shown, the amplitude of the light emerging is $a\cos\theta$.

amplitude = a
intensity = I

plane polarised light

θ

amplitude = $a\cos\theta$

polarising filter

The intensity of the initial beam is I.

What is the intensity of the emerging light when θ is 60.0°?

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