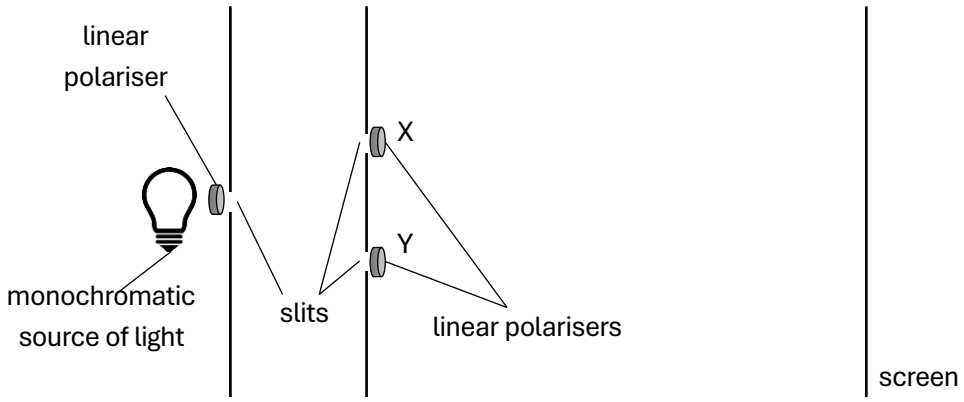
17 The diagram below shows a set-up to observe double slit interference from a monochromatic point source of light.



(not to scale)

The intensity at the central bright fringe is I_0 when the axes of polarisation for polarizers X and Y are aligned.

What is the new intensity at the central bright fringe if X is rotated through $60°$ relative to the original axis?

A $\frac{9}{16}I_0$ **B** $\left(\frac{2+\sqrt{3}}{4}\right)^2 I_0$ **C** $\frac{3}{4}I_0$

D $\frac{1}{2}I_0$