

Superposition

Cambridge International AS & A Level Physics

Unlike IGCSE, 9702 gives you a data sheet: it is page 2 of Papers 1, 2 and 4, with more formulae on page 3 of Paper 4. Everything marked GIVEN is printed for you; everything else you must recall. Compiled by GioPhysics from the published syllabus. This is an independent study aid, not a Cambridge document; the official syllabus is the authority.

8.3 Interference

AS Double-slit interference

$$\lambda = ax / D$$

λ — wavelength (m)

a — slit separation (m)

x — fringe separation (m)

D — slit-to-screen distance (m)

For light, with D much greater than a .

8.4 The diffraction grating

AS Grating equation

$$d \sin \theta = n\lambda$$

d — grating spacing (m)

θ — angle of the maximum (°)

n — order of the maximum

λ — wavelength (m)