

Worksheet: Ray Optics and Optical Instruments

IB · Class 12 · Physics · 5 questions · 14 marks

Name: _____

Date: _____

Score: _____ / 14

Q1. Find the critical angle for a glass-air interface ($\mu = 1.5$). *[2 marks]*

Q2. A convex lens of focal length 20 cm forms a real image at 30 cm. Find the object distance. *[3 marks]*

Q3. A 60 degree prism has minimum deviation 40 degrees. Find the refractive index. *[3 marks]*

Q4. A compound microscope has $f_o = 1$ cm, $f_e = 2.5$ cm, tube length 20 cm. Find the magnification. *[3 marks]*

Q5. An object is 5 cm from a concave mirror of focal length 10 cm. Find the image and magnification. *[3 marks]*
