

ACT 2

1. Suppose we fully illuminate a grating for which $d = 2.5 \mu\text{m}$. How big must it be to resolve the Na lines (589 nm, 589.6 nm), if we are operating at second order ($m = 2$)?
a. 0.12 mm b. 1.2 mm c. 12 mm
2. How many interference orders can be seen with this grating?
a. 2 b. 3 c. 4
3. Which will reduce the maximum number of interference orders?
a. Increase λ b. Increase d c. Increase N