

Physics 214

Quiz 2-3

- a) Green light of wavelength 500 nm passes through a grating that has 4200 lines per centimeter. At what angle is the second-order maximum?
- b) What is the highest-order maximum produced by this setup?
- c) If the light source were only to illuminate the first 1400 lines of the grating, at what angle would be the second-order principal maximum?
- d) The green light source is replaced with a yellow source of wavelength 580 nm. Will the angle of the first principal maximum be smaller or larger than before? Explain briefly; no credit without an explanation.)