Suppose a mineral has a retardation of 350 nm. What interference color would this produce? 1) _________________ (order & color) If this mineral is examined with a 1° red accessory plate and the fast directions of the plate and the mineral are parallel, what is the retardation? 2) _________________ What color would this correspond to? 3) _________________ If the fast directions are perpendicular, what will the retardation equal? 4) _________________ What color would this correspond to? 5) _________________

Suppose a mineral has a retardation of 200 nm. What interference color would this produce? 6) _________________ If this mineral is examined with a quarter-λ accessory plate and the fast directions of the plate and the mineral are parallel, what is the retardation? 7) _________________ What color would this correspond to? 8) _________________ If the fast directions are perpendicular, what will the retardation equal? 9) _________________ What color would this correspond to? 10) _________________

If a mineral has ε = 1.533 and ω = 1.577, what is the birefringence? 11) _________________ Is the mineral isometric, uniaxial, or biaxial? 12) _________________ What is the optical sign? 13) _________________ How many axes does this indicatrix have? 14) _________________ What is the shape of the indicatrix (be specific)? 15) _________________