COHERENCE PROBLEMS

1. What is the frequency of oscillation of light of 550 nm wavelength?

2. When light from a laser is shined on a spectacle lens, it produces an interference pattern due to interference between waves bounced from the back and front lens surfaces. No such pattern results when coherent light from a sodium arc lamp is shined on the lens. Why?

ANSWERS

1. 5.45×10^{14} hz

2. The laser light has a **much** longer coherence length than the light from the sodium arc lamp.