3. (a) From Fig. 34-2 we find the wavelengths in question to be about 515 nm and 610 nm.

(b) Again from Fig. 34-2 the wavelength is about 555 nm. Therefore,

$$f = \frac{c}{\lambda} = \frac{3.00 \times 10^8 \text{ m/s}}{555 \text{ nm}} = 5.41 \times 10^{14} \text{ Hz} ,$$

and the period is $(5.41 \times 10^{14} \text{ Hz})^{-1} = 1.85 \times 10^{-15} \text{ s}$.