5. The frequency, wavelength, and speed of light for a photon are related by

$$c = f\lambda$$

Dividing both sides of the equation by λ gives

$$f = c / \lambda$$

$$f = (3 \times 10^8 \text{ m} / \text{s}) / (700 \times 10^{-9} \text{ m})$$

$$f = 0.00428 \times 10^{17} \text{ s}^{-1} = 4.28 \times 10^{14} \text{ Hz}$$