

26. (a) Let the phase difference be ϕ . Then from Eq. 17-39, $2y_m \cos(\phi/2) = 1.50y_m$, which gives

$$\phi = 2 \cos^{-1} \left(\frac{1.50y_m}{2y_m} \right) = 82.8^\circ .$$

- (b) Converting to radians, we have $\phi = 1.45 \text{ rad}$.
(c) In terms of wavelength (the length of each cycle, where each cycle corresponds to $2\pi \text{ rad}$), this is equivalent to $1.45 \text{ rad}/2\pi = 0.23 \text{ wavelength}$.