

28. We compare the resultant wave given with the standard expression (Eq. 17-39) to obtain $k = 20 \text{ m}^{-1} = 2\pi/\lambda$, $2y_m \cos(\frac{1}{2}\phi) = 3.0 \text{ mm}$, and $\frac{1}{2}\phi = 0.820 \text{ rad}$.
- (a) Therefore, $\lambda = 2\pi/k = 0.31 \text{ m}$.
 - (b) The phase difference is $\phi = 1.64 \text{ rad}$.
 - (c) And the amplitude is $y_m = 2.2 \text{ mm}$.