

78. (a) Straightforward application of Eq. 36-3 and $v = \Delta x / \Delta t$ yields the result: film 1 with a traversal time equal to 4.0×10^{-15} s.
- (b) Use of Eq. 36-9 leads to the number of wavelengths:

$$N = \frac{L_1 n_1 + L_2 n_2 + L_3 n_3}{\lambda} = 7.5 \quad .$$