1. An interference pattern results when a laser beam shines on two slits spaced $10^{-5} \text{ m}$ apart. If the inner fringes are spaced $2.75^\circ$ apart, what is the wavelength of the laser?

A) 0 nm  
B) 320 nm  
C) 480 nm  
D) 960 nm

2. A camera is set to an f-stop of f/2. If the lens has a focal length of 50 mm, what is the effective diameter of the lens?

A) 2 mm  
B) 25 mm  
C) 50 mm  
D) 100 mm

Equations:

\[ d \sin \theta = m \lambda \quad \text{sin } \theta_c = n_2 / n_1 \]

\[ D \sin \theta = m \lambda \quad \tan \theta_p = n_2 / n_1 \]