79. (a) In this case, we are dealing with the situation that leads in the textbook to Eq. 36-35 for minima in reflected light from a thin film. The smallest non-zero answer, then, is for $m = 1$: $L = \lambda/2n_2$.

(b) Now, we are dealing with a situation exactly like that treated in Sample Problem 36-5, where the relation $L = \lambda/4n_2$ is derived.

(c) The indices bear the same relation here as in part (b), but we are looking now for the "opposite" result (maximum reflection instead of maximum transmission). We adapt the treatment in Sample Problem 36-5 by requiring $2L = m\lambda/n_2$ instead of $(m + \frac{1}{2})\lambda/2$. The smallest nonzero result in this case is for $m = 1$: $L = \lambda/2n_2$.