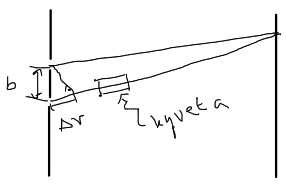
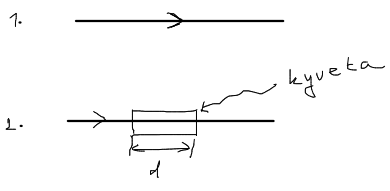


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$n_0 \rightarrow$ vzduch
 $n \rightarrow$ chlór
 svetlo s oh. dĺžkou λ



a) $\Delta r_1 = dn_0 = d n_0$
 $\Delta r_2 = dn = d(n + 2\pi)$

$\Delta r_2 - \Delta r_1 = dn - n_0 d = d(n - n_0) = d(n + 2\pi) = d n_0 = d(n + 2\pi - n)$
 $d(n - n_0) = 2\pi d$

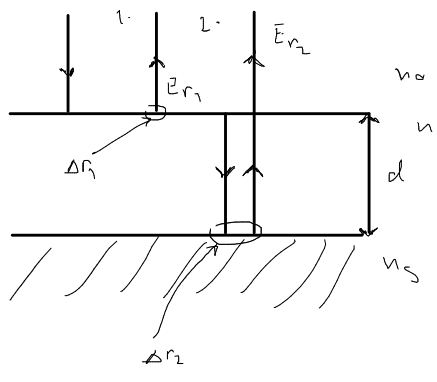
$$n = \frac{2\pi d}{\lambda} + n_0$$

b) $n > n_0 \rightarrow \Delta r_2 > \Delta r_1$

vzdialenosť maxim: $\Delta y = \frac{\lambda D}{d} \rightarrow \frac{d}{D} = \frac{\lambda}{\Delta y}$ dosadíme $d = \Delta r$

$\Delta r = \frac{d y}{D} = \frac{\lambda y}{\Delta y} \Rightarrow \Delta r \sim \frac{1}{\Delta y} \Rightarrow \uparrow \Delta r = \downarrow \Delta y$
 ↳ **průžky sa posunú k sebe**

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$n_0 < n < n_s$

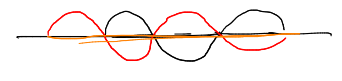
1. $\Delta r_1 = \frac{\lambda}{2}$

2. $\Delta r_2 = \frac{\lambda}{2}$

$\Delta r_3 = nd + nd = 2nd$

$\Delta r = \Delta r_1 + \Delta r_2 + \Delta r_3 = \frac{\lambda}{2} + \frac{\lambda}{2} + 2nd$

$\Delta r = (m + \frac{1}{2})\lambda$



$(m + \frac{1}{2})\lambda = \lambda + 2nd$

$m = 1: \frac{3}{2}\lambda = \lambda + 2nd$

$\frac{1}{2}\lambda = 2nd$

$$\lambda = 4nd$$