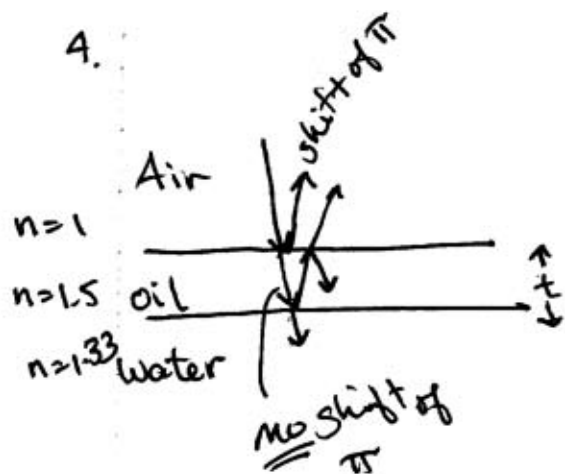


4.



Phase difference = phase shift contribution + path difference contribution

strongly reflected constructive

$$6\pi \rightarrow 4\pi \rightarrow 2\pi = \pi + \left(\frac{2tn}{\lambda} \right) 2\pi$$

$$5 \rightarrow 3 \rightarrow 1 = \frac{4tn}{\lambda} \quad t = \frac{\lambda}{4n} \quad \text{or} \quad \frac{3\lambda}{4n} \quad \text{or} \quad \frac{5\lambda}{4n}$$

$$t = \frac{670}{4(1.5)} = 111.67 \text{ nm} \quad t_3 = 335 \text{ nm} \quad t_5 = 558.3 \text{ nm}$$