

1) given that the absolute refractive indices of water and glass are  $\frac{4}{3}$  and  $\frac{3}{2}$  respectively. what is the refractive index of glass with the reference to water?  
a)  $\frac{2}{3}$  b)  $\frac{8}{9}$  c)  $\frac{9}{8}$  d)  $\frac{3}{4}$

if we consider the refractive index of glass with the reference to water, the proportion appears as follows:

$$\begin{aligned}\frac{4}{3} : 1 &= \frac{3}{2} : x \\ \frac{4}{3}x &= \frac{3}{2} \\ x &= \frac{3}{2} \cdot \frac{3}{4} \\ x &= \frac{9}{8}\end{aligned}$$

c)  $\frac{9}{8}$