## Question 36966

One might use Jurin's law in order to solve the problem. According to this law, liquid's height within a thin capillary tube is $h=\frac{2\gamma\cos\theta}{r\rho g}$, where $\gamma$ is the liquid surface tension, $\theta$ is the contact angle of the liquid on the tube wall, $r$ is the tube radius and $\rho$ is the liquid density.

Replacing $r\to 2r$, obtain $h'=\frac{2\gamma\cos\theta}{2r\rho g}=\frac{\gamma\cos\theta}{r\rho g}=\frac{h}{2}$, hence for capillary of double radius, the water rises to the half of the height in the previous case.