667A - Pouring Rain

To know how much water you consume per second you should divide consumed volume, v, by the area of the cup, $\dfrac{\pi d^2}{4}$. Then you should compare thisit with e. If your speed of drinking is greater, then you'll drink all the water in $\dfrac{h}{\frac{4v}{\pi d^2} - e}$ seconds. Otherwise you would never do it.