Quiz Week 3

Apply Hoeffding's inequality for upper bounding the tail

$$\Pr\{S_n \geq t\}$$

of

$$S_n = \sum_{i=1}^{n} X_i,$$

where

$$X_i \sim \mathrm{Ber}(\mu/n)$$

and make comments if the tail is loose or tight.

On Moodle, upload the numerical value of your derived upper bound for $t = 1$, $\mu = 1/2$, and $n = 10$, up to and including the second decimal, i.e., upload this numerical value in the form $A.BC$