3rd March 2023

Friday

Class #8

POISON

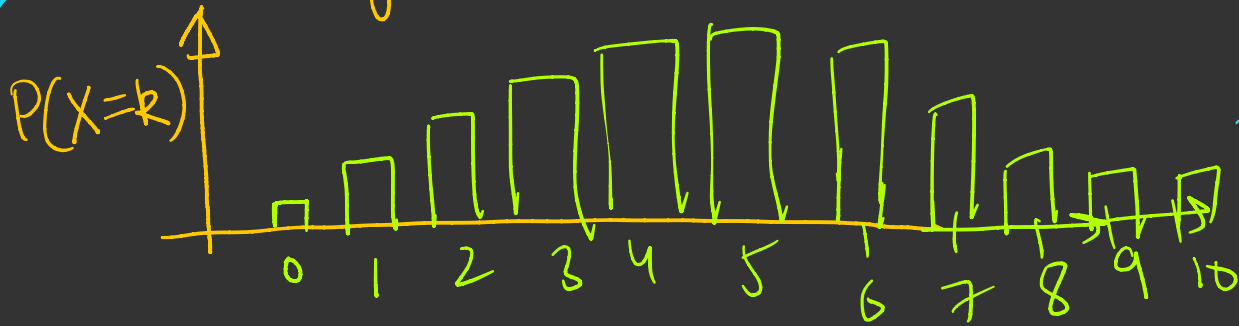
Let's Start @ 9:05pm

S

① Tossing a coin 10 times → Binomial

X → # of heads $X \to 0$ to 10

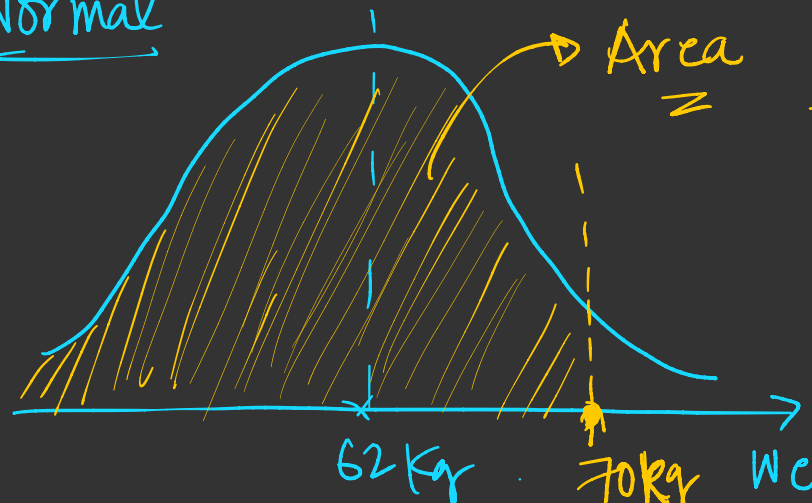
$${}^{n}C_{k}(p)^{k}(1-p)^{n-k}$$



For $k=8$

$${}^{10}C_{8}\,p^{8}(1-p)^{2}$$

② Normal



z score of 70 kg.

→ z-score table

• $P(X \leq 70\,\text{kg})$

$p = 0.015$

80 students

$P(X = 3) = ?$

0.867

Student will forget or remember

$p = 0.015$ $(1 - p)$

Coin $\begin{cases} H \rightarrow p = 0.015 \\ T \rightarrow 1 - p \end{cases}$

$P(X = 3) = ?$

$n = 80$

$k = 3$

$\Rightarrow$

binom.pmf ($n = 80$, $k = 3$, $p = 0.015$)

0.866

$80C_3 (0.015)^3 \cdot (1 - 0.015)^{77}$

Poisson approximation to Binomial distribution