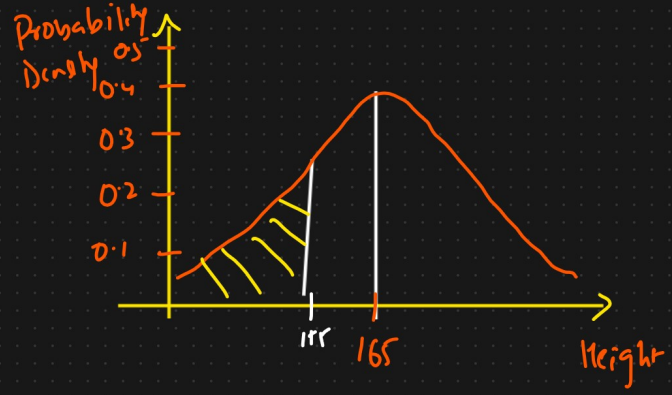
PW SKILLS

Probability Distribution Function / Density Function (pdf) (pmf)

① Probability Density Function (pdf)

① Continuous Random Variable

Eg: Heights of students in classroom [0 - 1]

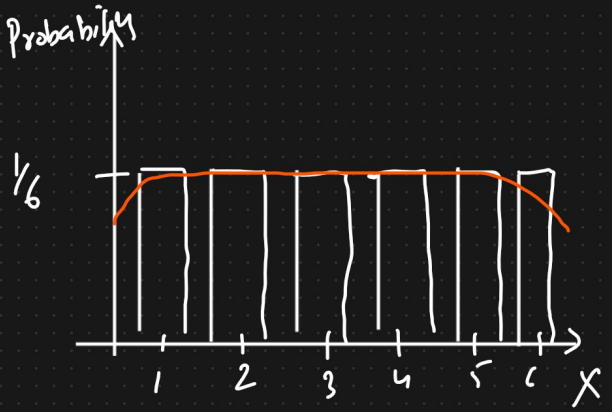


$Pr(X \leq 155)$ = Area under the curve

② Probability Mass Function (pmf)

Variable ⟶ Discrete Random Variable

Eg: Rolling a Dice {1, 2, 3, 4, 5, 6}



$Pr(1) = \frac{1}{6}$

$Pr(2) = \frac{1}{6}$

$Pr(X \leq 4) = Pr(X=1) + Pr(X=2) + P(X=3) + Pr(X=4)$

$= \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{4}{6} = \frac{2}{3}$

③ Cumulative Distribution Function (cdf)