

Link 30/04/2020

- Link alle due lezioni registrate:
 - https://drive.google.com/open?id=1mfl6S_0eIrGfOOFGLzD4fmb-3FtTOGar

04/05/2020

ISTOGRAMMA 10 misole $i = 1, 2$ (1)

x 26, 24, 26, 28, 23, 24, 25, 24, 26, 25
 n = = = = = = = = =

x_i 23, 24, 24, 24, 25, 25, 26, 26, 26, 28

X_R 23 24 25 26 27 28 n BIA h

n_R 1 3 2 3 0 1 $h = 1, 6$

f_R 1/10 3/10 2/10 3/10 0/10 1/10 INTERVALLI

$$\bar{x} = \frac{\sum_{i=1}^n X_i}{n} = \frac{23 \cdot 1 + 24 \cdot 3 + 25 \cdot 2 + 26 \cdot 3 + 27 \cdot 0 + 28 \cdot 1}{10}$$

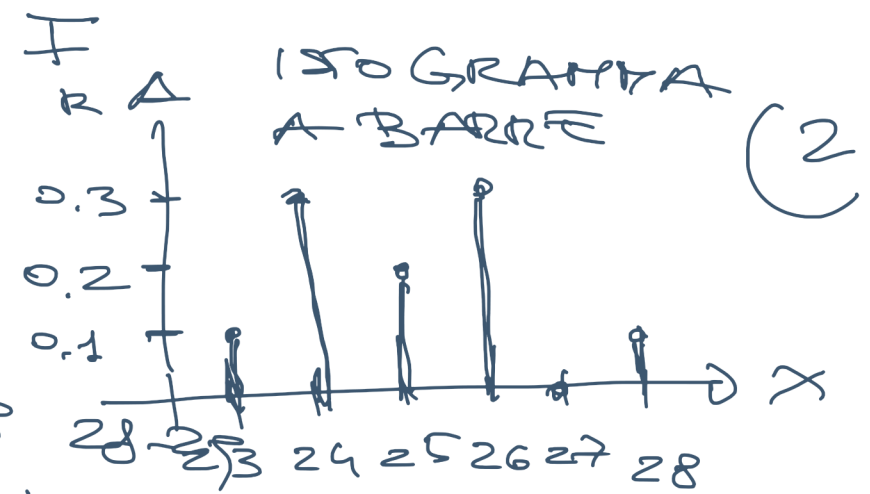
$$= \frac{\sum_{R=1}^M X_R \cdot n_R}{n} \quad M=6$$

FREQUENZA

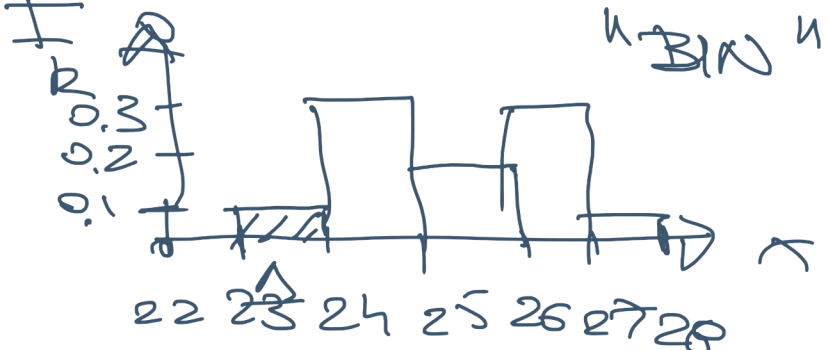
SOMMA PESATA

$$\left[\sum_R F_R = \frac{10}{10} = 1 \right] = \frac{\sum_R X_R \left(\frac{n_R}{n} \right)}{1} = \sum_R X_R \frac{F_R}{1}$$

23,1, 24,2, 23,9, 24,4, 24,9
 25,1,

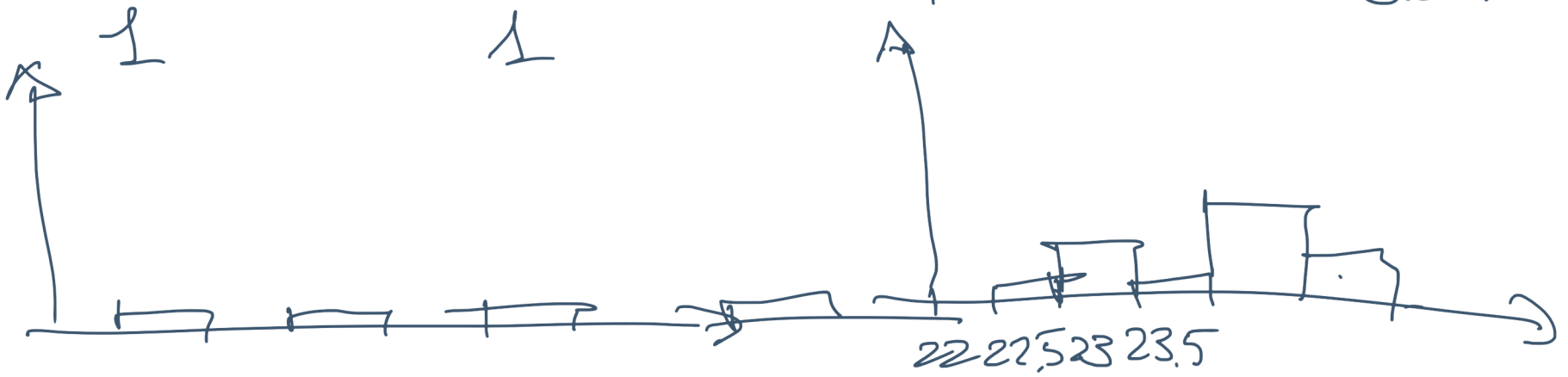


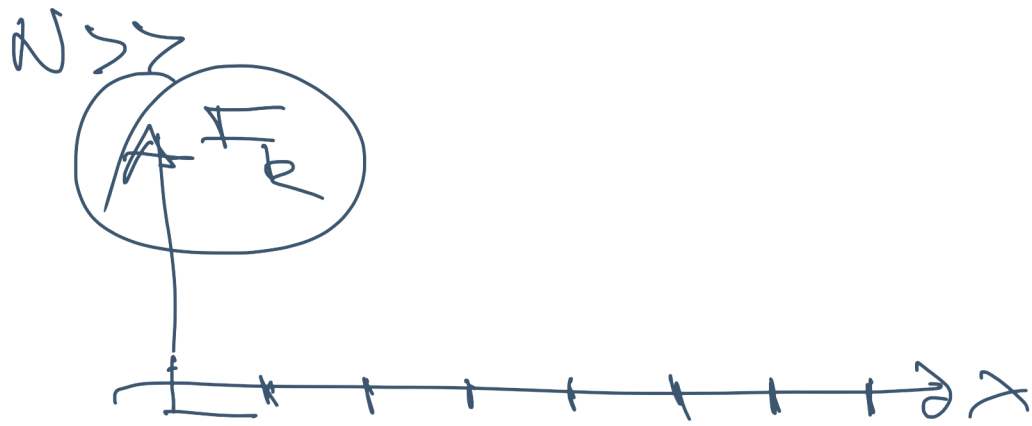
23-24	24-25	25-26	26-27	27-28
1	3	2	3	1
1/10	3/10	2/10	3/10	1/10



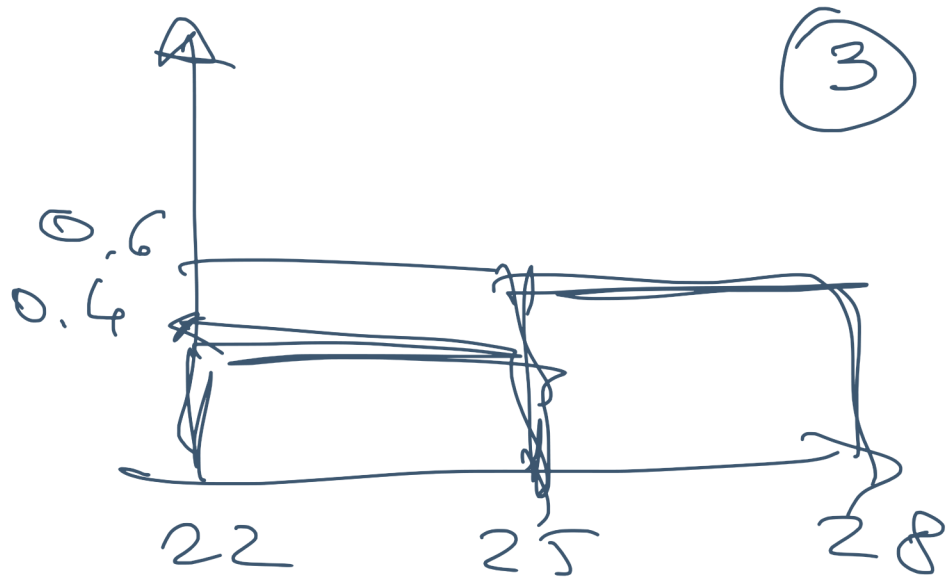
$\Delta_k = 1$ DIMENSIONI

23-23,5 23,5-24,0 24,0-24,5 INTERVALLI





$$F_R = \frac{b}{2} N$$



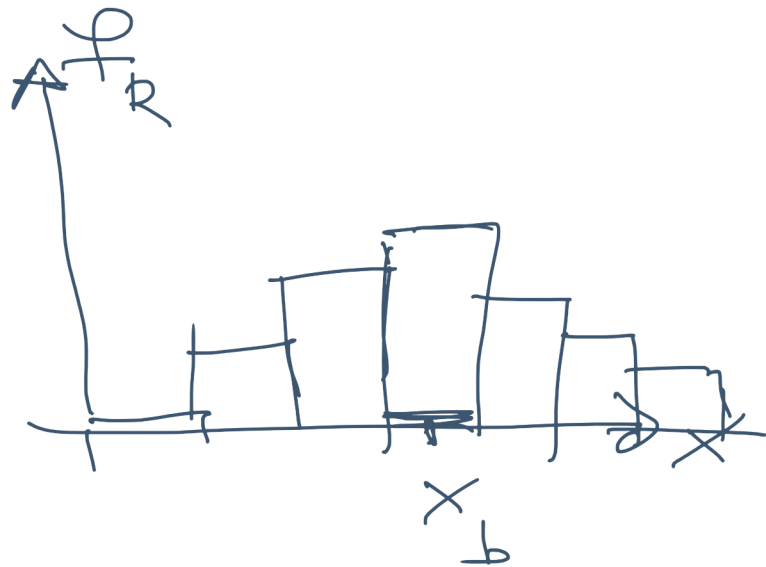
3

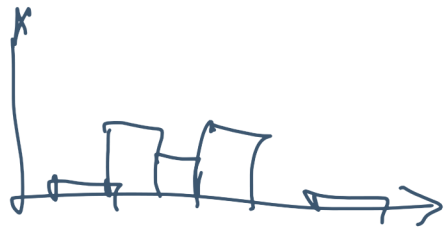
$N \ll \Delta$

○○○, ||||, ||2, ...

$$f_R = \frac{F}{\Delta}$$

$$F_R = f_R \Delta$$

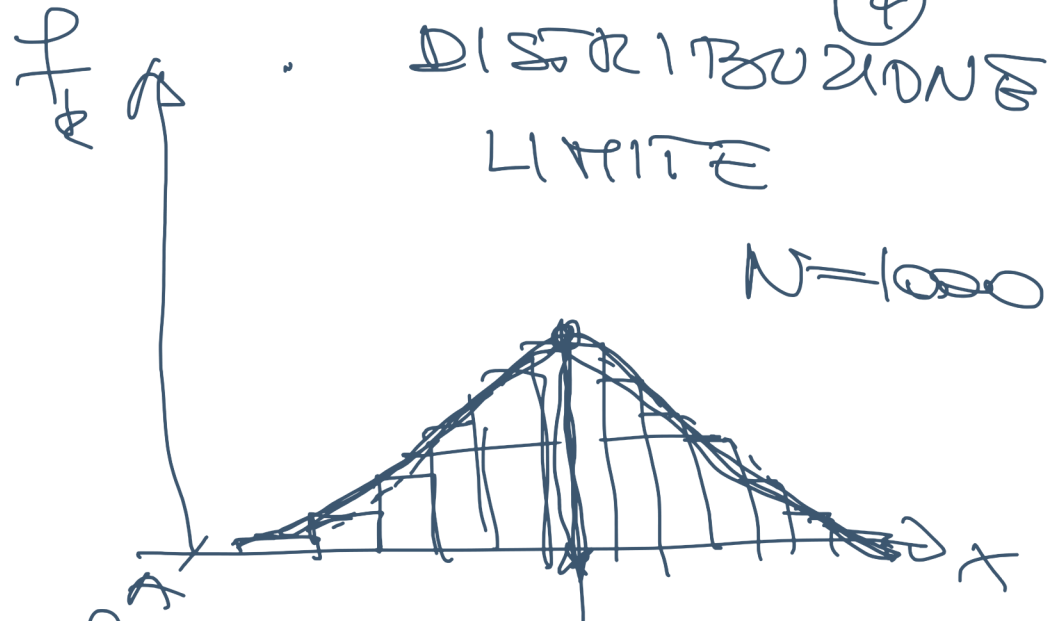
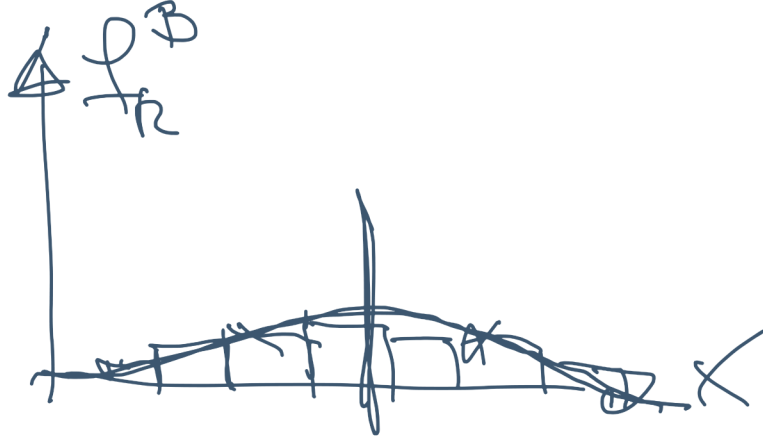




$N=5$

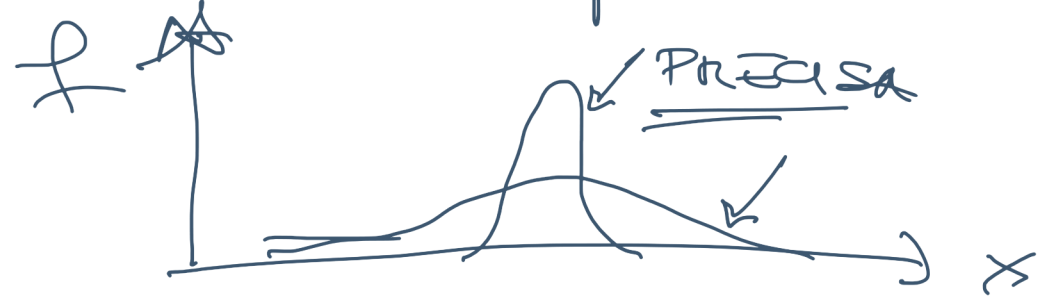
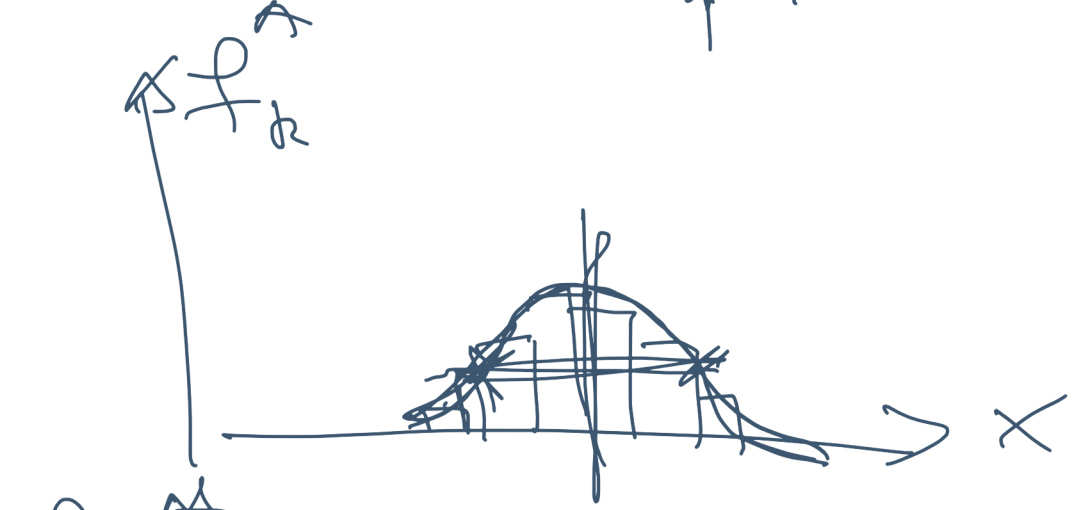


$N=10$



④
DISTRIBUZIONE
LIMITE

$N=1000$



probabilità misura come
 dell'intervallo $(x, x+dx)$



$$\int_x^{x+dx} f(x) dx$$

$$\int_a^b f(x) dx$$

$$\Rightarrow \sum_k f_k \Delta_k = \sum_k f_k = 1$$

$$\int_{-\infty}^{+\infty} f(x) dx = 1$$

NORMALIZZATA

$$1 = \sum_k x_k f_k$$

$$= \sum_k x_k \frac{f_k}{\Delta_k} \Delta_k$$

$$f_k = f(x_k) \Delta_k$$

$$\Rightarrow \int_{-\infty}^{+\infty} x f(x) dx = X$$

6

$$\|x\|_2 = \sqrt{\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2}$$

$$x_i \rightarrow \bar{x}$$

$$\|x\|_p = \sqrt[p]{\sum_{i=1}^n (x_i - \bar{x})^p}$$

$$\int_a^b (x - \bar{x})^p f(x) dx = 1$$

$$x_i \rightarrow \bar{x}$$