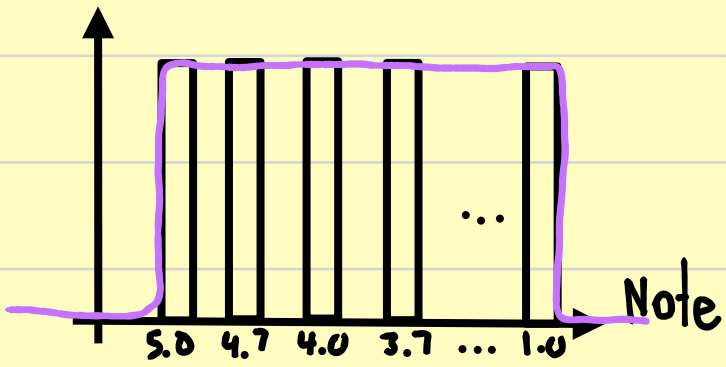
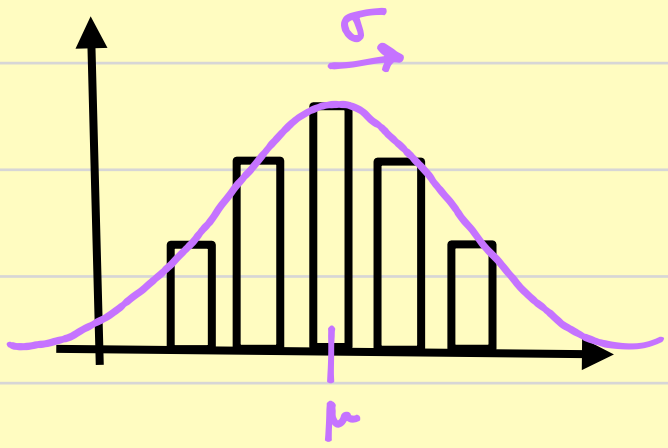
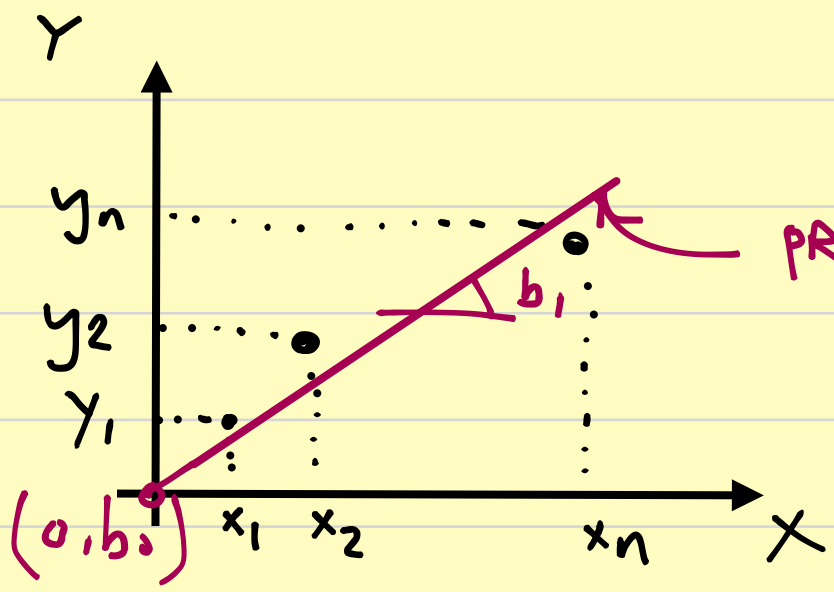
Datenverteilung . Konstant / UNIFORMVERTEILUNG $U(\mu,\sigma)$



Datenverteilung . NORMAL / GAUSSVERTEILUNG $N(\mu,\sigma)$



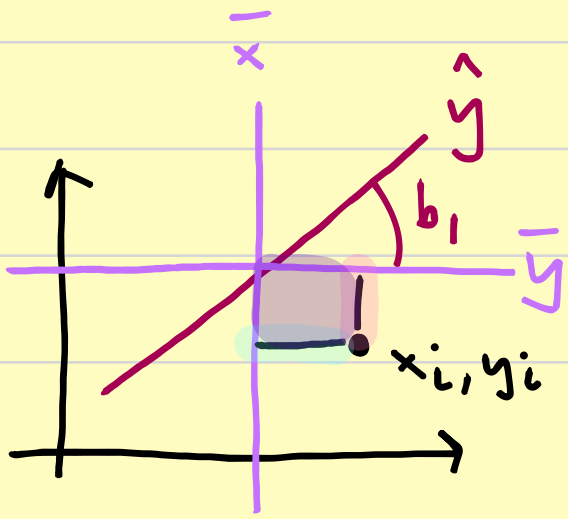
LINEARE REGRESSION



PROGNOSE $\hat{y} = b_0 + b_1 x$

SCHRITT 1:

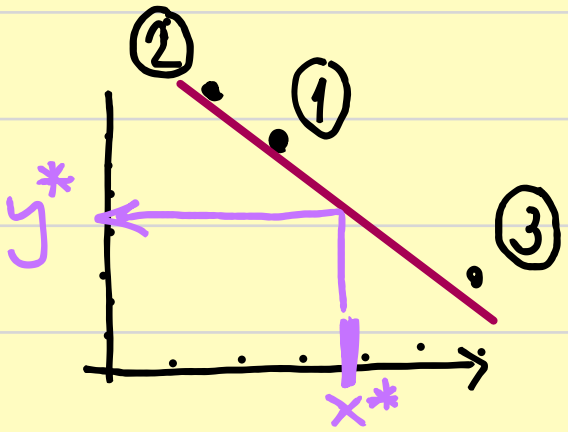
$$b_1 = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sum (x_i - \bar{x})^2}$$



SCHRITT 2:

$$b_0 = \bar{y} - b_1 \cdot \bar{x}$$

	x	y
①	3	7
②	2	8
③	6	2



$$\bar{x} = \frac{3+2+6}{3} = \frac{11}{3}$$

$$\bar{y} = \frac{7+8+2}{3} = \frac{17}{3}$$

$$\hat{y} = b_0 + b_1 x$$

$$b_1 = \frac{\left(3-\frac{11}{3}\right)\left(7-\frac{17}{3}\right)+\left(2-\frac{11}{3}\right)\left(8-\frac{17}{3}\right)+\left(6-\frac{11}{3}\right)\left(2-\frac{17}{3}\right)}{\left(3-\frac{11}{3}\right)^2+\left(2-\frac{11}{3}\right)^2+\left(6-\frac{11}{3}\right)^2} \quad ✓$$

$$b_0 = \frac{17}{3} - b_1 \cdot \frac{11}{3} = \dots \quad ✓$$