

31 de Octubre de 2016

- La distribución Normal Estandarizada

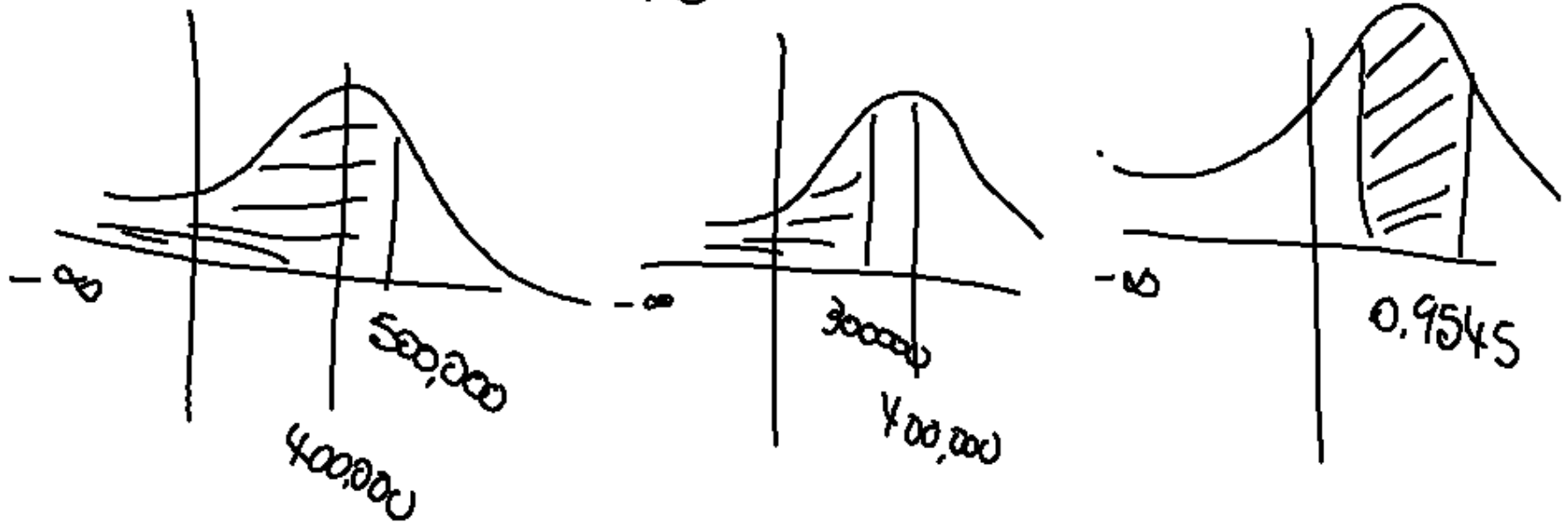
π irracional. ≈ 3.1416	racional $\Rightarrow \frac{a}{b}$ $a, b \in \mathbb{Z}$ billion guaya mil. millones billon castellano millón de millones
$5,000.000.000,000 / 2010$	

$$P(300,000 \leq x \leq 500,000) =$$

$$= P_A(x \leq 500,000) - P_A(x \leq 300,000)$$

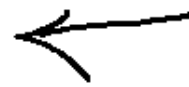
$$= 0.9772 - 0.0227$$

$$= 0.9545$$



$$\frac{\mu}{\sigma} \quad f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\left(\frac{x-\mu}{\sigma}\right)^2/2}$$

$$\begin{array}{l} \mu=0 \\ \sigma=1 \end{array} \quad f(z) = \frac{1}{\sqrt{2\pi}} e^{-z^2/2}$$



$$z = \frac{x-\mu}{\sigma}$$

$$\mu = 400,000$$
$$\sigma = 50,000$$

$$\frac{100,000}{50,000} = 2$$

$$P(300,000 \leq x \leq 400,000)$$

$$Z = \frac{300,000 - 400,000}{50,000}$$

$$Z = -2 ; Z = 2$$

$$P(-2 \leq Z \leq 2)$$

$$D(2) = 0.9545$$

De la tabla
de Probabilidad
Acumulada
Estandarizada

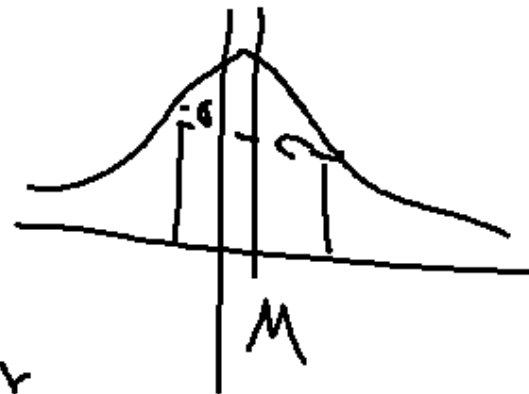
Variable Aleatoria Continua

Distribucion de Probabilidades Normal

$$P_N(-\infty \leq x \leq \infty) = 1$$

$$P_N(-\infty \leq x \leq a) = \int_{-\infty}^a f(x) dx$$

$$P_N(-\infty \leq x \leq a) = \int_{-\infty}^a x \cdot f(x) dx$$



$$Z = \left(\frac{x - \mu}{\sigma} \right) \text{ para estandarizar}$$