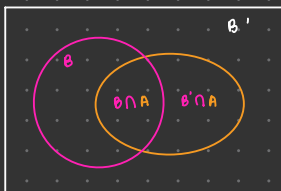


Laboratorio 2

TASK 1:

Ejercicio 1:

- $P(A) = P(A|B)P(B) + P(A|B')P(B')$



$$A = (B \cap A) \cup (B' \cap A)$$

$$P(A) = P(B \cap A) \cup P(B' \cap A)$$

Multiplicación de la probabilidad condicional
 $P(B \cap A) = P(A|B)P(B)$

$$P(A) = P(A|B)P(B) + P(A|B')P(B')$$

- $P(A|B) = P(B|A)P(A)/P(B)$

$$P(A|B) = P(AB)/P(B)$$

y se conoce que $P(AB)$ es...

$$P(AB) = P(B|A)P(A)$$

Por lo tanto al sustituir $P(AB)$ en $P(A|B)$ se conoce que

$$P(A|B) = \frac{P(B|A)P(A)}{P(B)}$$

TASK 2:

Monedas →

- $\text{cara}_1 = 0.7$

- $\text{cara}_2 = 0.2$

- $\text{cara}_3 = 0.5$

- $\text{esc}_1 = 0.3$

- $\text{esc}_2 = 0.8$

- $\text{esc}_3 = 0.5$

$$(0.7 \cdot 0.8 \cdot 0.5) = 0.28$$

$$(0.2 \cdot 0.3 \cdot 0.5) = 0.03$$

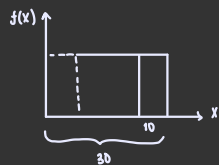
$$(0.5 \cdot 0.3 \cdot 0.8) = 0.12$$

$$0.43$$

TASK 3:



$$\frac{1}{30} = 0.0\bar{3}\bar{3}$$



$$\text{altura} = \frac{1}{30}$$

$$\text{base} = 10$$

$$\text{area} = \frac{1}{30} \times 10 = \frac{1}{3} = 0.3\bar{3}$$