

Ω

$$x \in A \setminus (\Omega \setminus B)$$

$$\Leftrightarrow x \in A \wedge$$

$$x \notin \Omega \setminus B$$

$$\Leftrightarrow x \in A \wedge x \in B$$

$$P(A) = \frac{|A|}{|\Omega|} > 0$$

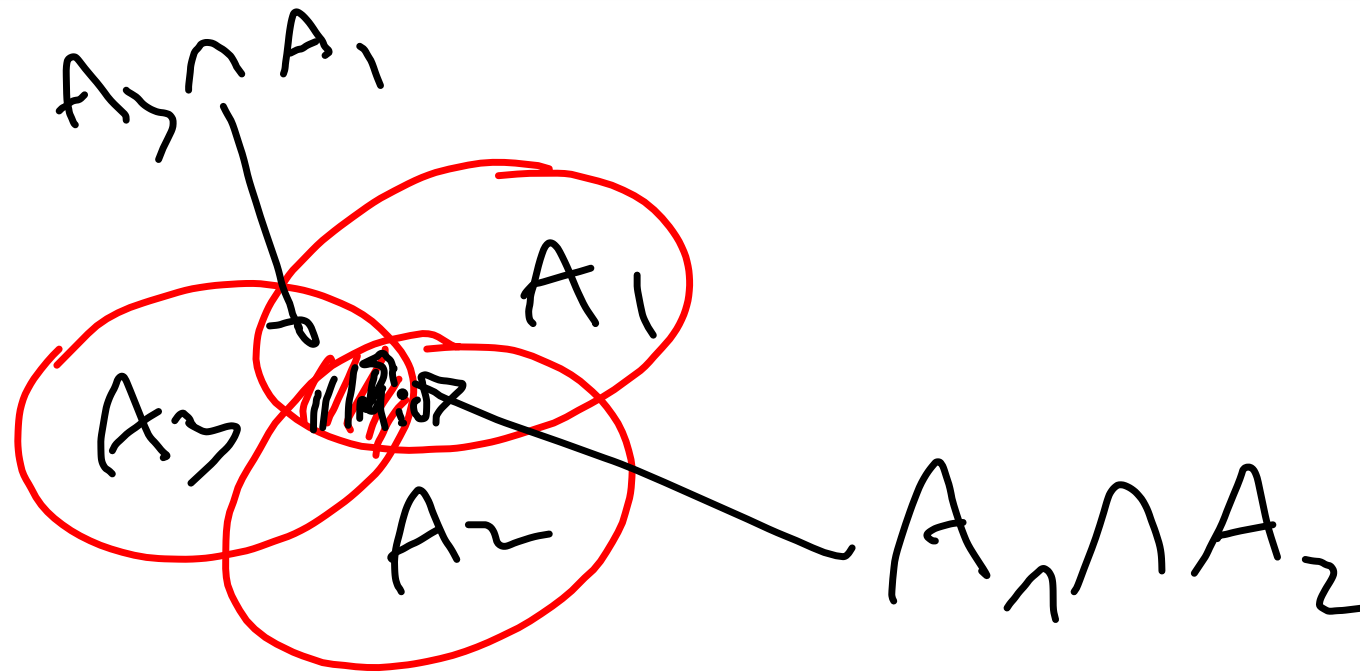
$$2: (1,1) \longrightarrow 1/36$$

$$3: \begin{array}{l} (1,2) \\ (2,1) \end{array} \longrightarrow 2/36 = 1/18$$

⋮

$$7: \begin{array}{l} (1,6) \\ (2,5) \\ (3,4) \\ (4,3) \\ (5,2) \\ (6,1) \end{array} \longrightarrow 6/36 = \underline{\underline{1/6}}$$

$$A \cap B = \emptyset \Rightarrow P(A) + P(B) = P(A \cup B)$$



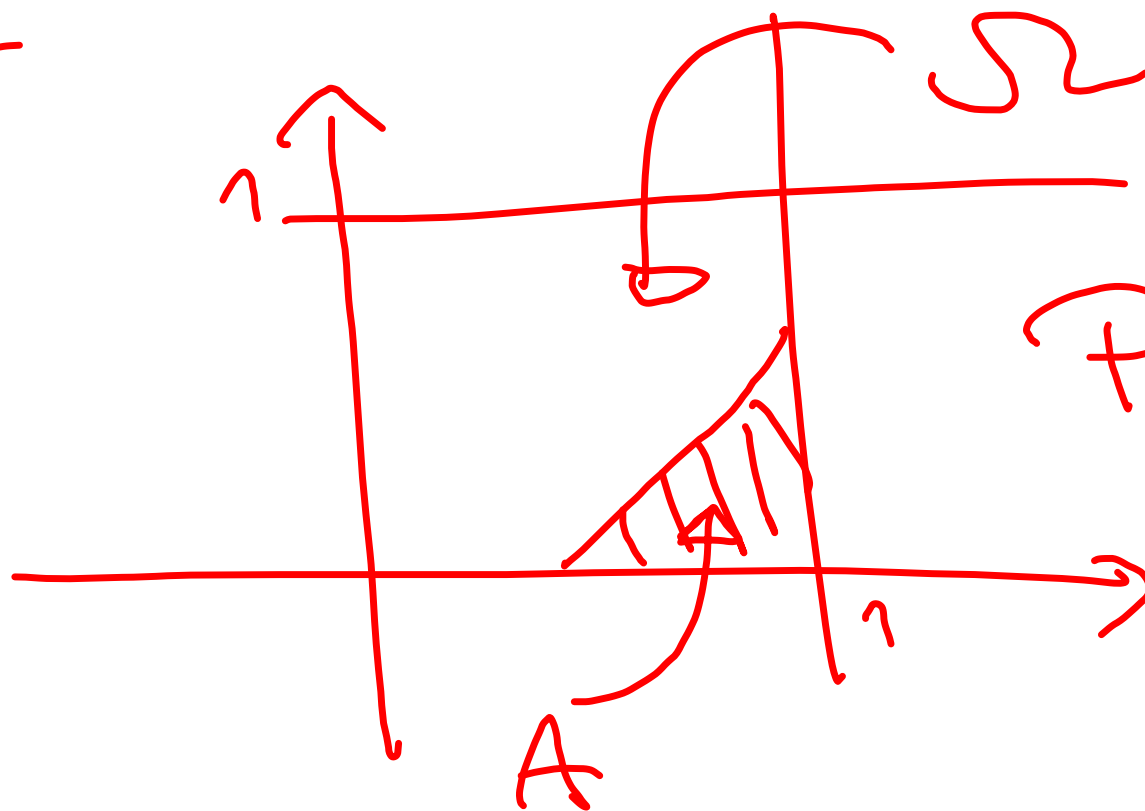
$$x \in A_1 \cup A_2 \Leftrightarrow \underbrace{x \in A_1 \vee x \in A_2}$$

$$x \in (A_1^c \cap A_2^c)^c \Leftrightarrow x \notin A_1^c \cap A_2^c \Leftrightarrow x \notin A_1^c \vee x \notin A_2^c$$

$$\Leftrightarrow \underbrace{x \in A_1 \vee x \in A_2}$$

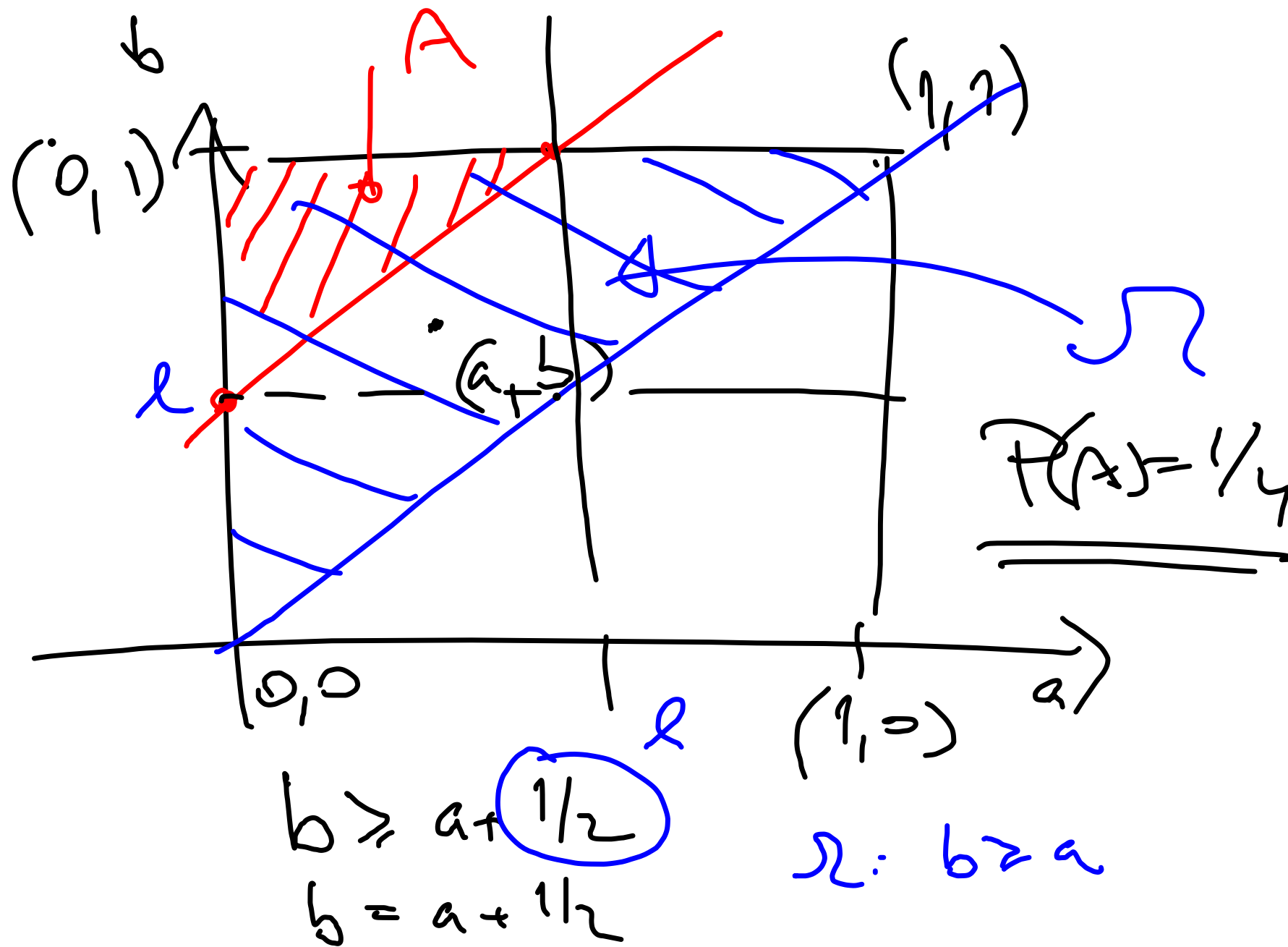
$$\frac{\cancel{P(A_1)} \cancel{P(A_2 \cap A_1)} \cancel{P(A_3 \cap A_2 \cap A_1)}}{\cancel{P(A_1)} \cancel{P(A_2 \cap A_1)}}$$

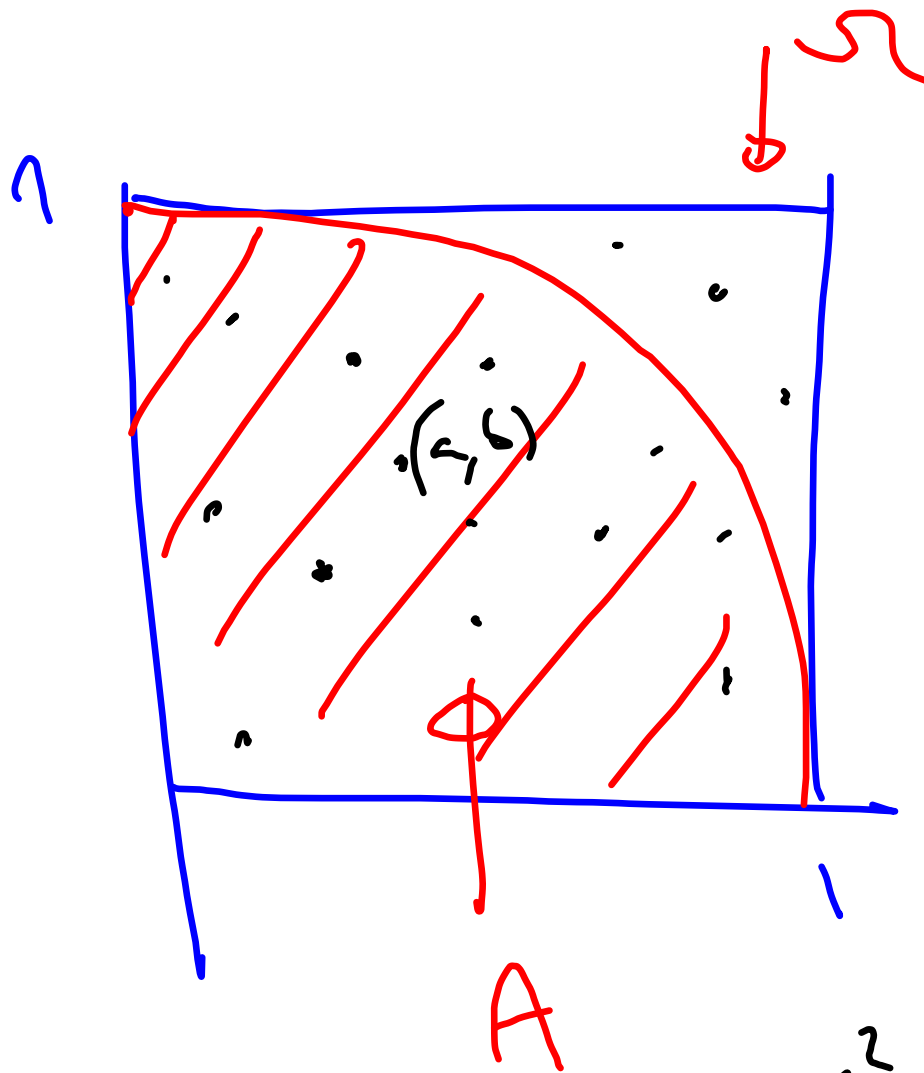
\mathbb{R}^2



vol Ω

$$P(A) = \frac{\text{vol } A}{\text{vol } \Omega}$$





$$\text{vol } A = \frac{1}{4} \pi$$

$$\text{vol } \Omega = 1$$

$$a^2 + b^2 < 1$$