

# PROBABILIDADE DA UNIÃO

Caso Particular



EVENTOS MUTUAMENTE EXCLUSIVOS:

$$P(A \cup B) = P(A) + P(B).$$

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

$$\Omega = \{1, 2, 3, 4, 5, 6\}$$

$$A = \{1, 2, 3\}$$

$$B = \{2, 3, 4, 5, 6\}$$

$$A \cup B = \{1, 2, 3, 4, 5, 6\}$$

$$A \cap B = \{2, 3\}$$

$$P(A) = \frac{3}{6}$$

$$P(B) = \frac{5}{6}$$

$$P(A \cup B) = \frac{6}{6}$$

$$P(A \cap B) = \frac{2}{6}$$

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$

$$\frac{3}{6} + \frac{5}{6} - \frac{2}{6} = \frac{6}{6}$$

unidade:  $\frac{6}{6} > 1 !!$



$$A \cap B = \emptyset$$

$$P(A \cap B) = 0$$

$$P(A \cup B) = P(A) + P(B) - \cancel{P(A \cap B)}$$