

## Tarefa Básica - Probabilidade I

01.  $P \times P = P$   $I = \{1, 3, 5, 7, 9, 11, 13, 15, 17, 19\}$  10 elementos

$$P \times I = P$$

$$I \times I = I, \quad n(I) = C_{10,2} = \frac{10 \cdot 9}{2 \cdot 1} = 45$$

$$n(S) = C_{20,2} = \frac{20 \cdot 19}{2 \cdot 1} = 190 \rightarrow P(I) = \frac{45}{190} = \boxed{\frac{9}{38} \text{ (A)}}$$

02.  $P = \{2, 4, 6\} \rightarrow n(P) = 3$   $P(P) = \frac{n(P)}{n(S)} = \frac{3}{6} = \boxed{\frac{1}{2} \text{ (D)}}$   
 $S = \{1, 2, 3, 4, 5, 6\} \rightarrow n(S) = 6$

03.  $\begin{array}{cc} 1000 & 100 \\ x & 17 \end{array}$   $\begin{array}{cc} 170 & 100 \\ y & 44 \end{array}$   $P = \frac{75}{1000} = \boxed{0,075 \text{ (B)}}$   
 $x = 170 \text{ fumam}$   $y \approx 75 \text{ mulheres fumam}$

04.  $A = \{2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31\}$   $n(A) = 12$   $C_{12,2} = 66$   
 $B = \{3, 5\}, \{5, 7\}, \{11, 13\}, \{17, 19\}, \{29, 31\}$   $n(B) = 5$

$$P = \frac{n(B)}{n(A)} = \boxed{\frac{5}{66} \text{ (B)}}$$

05.  $\frac{99}{3} = 33$   $P = \frac{33}{99} = \boxed{\frac{1}{3} \text{ (B)}}$

06.  $A = \{(1, 6), (2, 5), (3, 4), (4, 3), (5, 2), (6, 1)\}$   $n(A) = 6$

$$P = \frac{6}{6 \cdot 6} = \boxed{\frac{1}{6} \text{ (C)}}$$