

D S T Q Q S S

Tarefa Básica - Probabilidade I

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

$$P \times I = P$$

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

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

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. 1000 homens 170 fumam $x = 170$
 1000 mulheres 44 fumam $y = 44$

$$P = \frac{75}{1000} = \boxed{0,075 \text{ (B)}}$$

$$x = 170 \text{ fumam} \quad y \approx 75 \text{ mulheres fumam}$$

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

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

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

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

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