TAREFA: PROBABILIDADE I

1) 2 números naturais distintos → de 1 a 20.

par . ímpar = par
par . par = par
ímpar . ímpar = ímpar

→ 10 ímpares . 9 ímpares

$$P = \binom{10}{20} \cdot \binom{9}{19}$$

$$P = \binom{1}{2} \cdot \binom{9}{19} \rightarrow P = \frac{9}{38}$$

R: (A)

2) 6 lados

$h(\Omega) = 6 \;/\; \{1, 2, 3, 4, 5, 6\} \rightarrow h(d) = 3$

$P(d) = \frac{3}{6} = \frac{1}{2}$ → R: (D)

3) 1000 pessoas
→ 17% Fumam
→ 44% são mulheres.

$\frac{1000}{x} \times \frac{100\%}{17\%}$

$17000 = 100x$

$\frac{17000}{100} = x$

$170 = x$ → 44%?

↳ fumam

$\frac{170}{x} \times \frac{100}{44}$

$100x = 7480$

$\frac{7480}{100} = x$

$74{,}8 = x$

tilibra

$P(FeM) = \frac{74,8}{1000} = 0,0748 \cong \boxed{0,075}$ → R: (B)

4)

$h(S) = \{2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37\}$

12 números primos → entre 0 e 40

$C_{12,2} = \frac{A_{12,2}}{P_2} \rightarrow \frac{12 \cdot 11}{2 \cdot 1} = \frac{132}{2} \rightarrow 66$

Pares de ímpares:

$\{3,5\}$
$\{5,7\}$
$\{11,13\}$
$\{17,19\}$
$\{29,31\}$
} $h(e) = 5$

$P = \frac{n(E)}{h(S)} \rightarrow \boxed{\begin{matrix}5\\66\end{matrix}}$ → R: (B)

5) de 1 a 99

↳ 33 são divisíveis por 3

$P = \frac{33^{:33}}{99^{:33}} \rightarrow \boxed{\begin{matrix}1\\3\end{matrix}}$ → R: (B)

6)

(1,6)
(6,1)
(5,2) → $h(e) = 6$ $\quad h(S) = 6 \cdot 6 = 36$
(2,5)
(4,3)
(3,4)

$P = \frac{6^{:6}}{36} = \boxed{\begin{matrix}1\\6\end{matrix}}$ → R: (C)