

## Permutações

Exercícios 1,2,3 e 4

01.

$$P8! = 8 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 40.320$$

$$2. P7 = 2 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 10.080$$

$$40.320 - 10.080 = 30.240 //$$

02. (MACK)

$$6! - 5!$$

$$\begin{aligned} 6! &= 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 - 5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 \\ &720 - 120 \\ &= 600 // \text{ Resposta D} \end{aligned}$$

03. (MACK)

moral = 5 letras

$$5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 120 // \text{ Resposta A}$$

04. (MACK)

Mackenzie = 9 letras

$$2 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 5040 // \text{ Resposta C}$$

Exercícios 5,6,7 e 8

05. (UEL)

$\overset{\uparrow}{L} \overset{\uparrow}{o} \overset{\uparrow}{n} \overset{\uparrow}{d} \overset{\uparrow}{r} \overset{\uparrow}{e} \overset{\uparrow}{s} = 7$  letras

$$P_{5! \cdot 2!} = 2 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 \cdot 1 = 240 // \text{ Resposta B}$$

06. (UEBA)

$$4! \cdot 2!$$

$$4 \cdot 3 \cdot 2 \cdot 1 \cdot 2 \cdot 1 = 48 // \text{ Resposta B}$$

07. (UFU)

$\overset{\uparrow}{E} \overset{\uparrow}{r} \overset{\uparrow}{n} \overset{\uparrow}{e} \overset{\uparrow}{s} \overset{\uparrow}{t} \overset{\uparrow}{a} = 7$  letras

$$\frac{4 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 \cdot 3}{2 \cdot 1} = 720 // \text{ Resposta B}$$

08. (MACK)

Homem mulher  
Homem mulher =  $5!$   
mulher

$$5! = 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 120$$

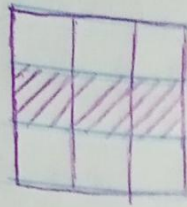
$$120 - (4! \cdot 2!)$$

$$120 - 48$$

$$= 72 // \text{ Resposta B}$$

### Exercício 9

09. (MACK)



→ mesma cor

$P_6(3,3)$

$$\frac{6!}{3! 3!} = \frac{6 \cdot 5 \cdot 4 \cdot 3!}{3! \cdot 2 \cdot 1} = \frac{120}{6} = 20$$

$$20 \cdot 3 = 60 // \text{ Resposta E}$$