



**INSTITUTO FEDERAL**

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SALA: 317

## **MATEMATICA**

SEMANA 15

①  $P_3 - A_{4,3}$   
 $C_{4,2}$

$$\frac{5!}{(4-3)!} = \frac{120}{1} = 120$$

$$\frac{4!}{(4-2)!} = \frac{24}{2} = 12$$

$$120 - 12 = 108$$

R: 108

②  $8 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 = 20160$   
 $5! = 120$

R: 28 modos

③

$$B_r = 4p \rightarrow 3br = 6 \cdot 5 = 30$$

$$I_t = 6p \rightarrow 2it = 2 \cdot 1 = 2$$

$$\frac{4!}{3!} = \frac{4 \cdot 3 \cdot 2}{3 \cdot 2} = 4$$

$$30 \cdot 4 = 120$$

R: 60

④  $\frac{5!}{3!(5-3)!} = \frac{120}{6} = 20$   
 $\frac{4!}{3! \cdot 2!} = \frac{24}{6} = 4$

R: 10

⑤  $\frac{6 \cdot 5}{2 \cdot 1} = \frac{30}{2} = 15$   $\left\{ \begin{array}{l} \frac{4 \cdot 3}{2 \cdot 1} = 6 \\ \frac{4 \cdot 3}{2 \cdot 1} = 6 \end{array} \right\}$   $15 \cdot 6 = 90$

R: (C)

⑥  $\frac{12}{8} = \frac{3}{2}$   $\frac{9}{3} = 3$   $X_{4,2}$   
 $\frac{4!}{3!} = \frac{4 \cdot 3 \cdot 2}{3 \cdot 2} = 4 \rightarrow X^3 + 4^3 = 64$

R: (E)

⑦  $\frac{5!}{3! \cdot 2!} = \frac{120}{12} = 10$   $10 \cdot 4 = 40 < 3^\circ \text{ fase}$   
 $\frac{4!}{3! \cdot 2!} = \frac{24}{12} = 2$

$4 + 7 \cdot 1 = 11$

$\leftarrow 2^\circ \text{ fase}$

$40 + 7 = 47$

R: (E)

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⑧  $\frac{6.5}{2.3} = \frac{30}{2} = 15$      $\frac{4.3}{2.3} = \frac{10}{2} = 5$      $\frac{2.3}{2.3} = 1$

$$15.6.1 = 90$$

R:(D)

⑨  $\frac{10!}{1!(10-1)!} = \frac{10.9!}{9!} = 10$      $\frac{10!}{2!(10-2)!} = \frac{10.9.8!}{2.7!} = 45$

$\frac{10!}{3!(10-3)!} = \frac{10.9.8.7!}{3.2.1.7!} = 120$      $10 + 45 + 120 = 175$

$$175.3 = 525$$

R:(A)