

11  
Tarefa Básica - Combinação

$$01 - \frac{P_5 - A_{4,3}}{C_{4,2}} = \frac{(5 \cdot 4 \cdot 3 \cdot 2 \cdot 1) - (4 \cdot 3 \cdot 2)}{\frac{4 \cdot 3}{2 \cdot 1}} = \frac{96}{6} = \boxed{16}$$

02 - 8 question, 6 Monitores

$$\frac{8 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3}{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1} = \frac{20.160}{720} = \boxed{28} \text{ formas de escolha}$$

03 - 10 Pensões, 4 BR e 6 IT. 5 elementos,

$$\frac{4 \cdot 3 \cdot 2 \cdot 6 \cdot 5}{3 \cdot 2 \cdot 1 \cdot 2 \cdot 1} = \frac{720}{12} = \boxed{60} \text{ Combinações}$$

04 -  $A = \{0, 1, 2, 3, 4\}$

$$\frac{5 \cdot 4 \cdot 3}{3 \cdot 2 \cdot 1} = \frac{60}{6} = \boxed{10} \text{ subconjuntos}$$

05 - 6 de álgebra e 4 de geometria. Provar usando 2 de cada, 4 geom

$$\frac{6 \cdot 5 \cdot 4 \cdot 3}{2 \cdot 1 \cdot 2 \cdot 1} = \frac{360}{4} = \boxed{90} \text{ Provar } \textcircled{C}$$

06 - 12 Prof, 4 Nota, 4 Geo e 4 ING. 9 Prof, 3 de cada matéria.

$$\frac{4 \cdot 3 \cdot 2 \cdot 4 \cdot 3 \cdot 2 \cdot 4 \cdot 3 \cdot 2}{3 \cdot 2 \cdot 1 \cdot 3 \cdot 2 \cdot 1 \cdot 3 \cdot 2 \cdot 1} = \frac{13.824}{216} = \boxed{64} \text{ formas}$$

$\textcircled{E}$



07- 29 times, 4 choices from 5 times

$$\frac{5 \cdot 4}{2 \cdot 1} = \frac{20}{2} = 10 \text{ paper per share}$$

$$10 \cdot 9 = 90 \text{ paper}$$

addition 2 times, denominator

$$\frac{8}{2} \rightarrow \frac{4}{2} \rightarrow \frac{2}{2} = 1$$

↑  
simplified

$$40 + 4 + 2 + 1$$

47 paper

(E)

08- 9 times, 3 choices, 3 times each.

$$(6,2) \times (4,2) \times (2,2) \mid \underline{6} \underline{5} \underline{4} \underline{3} \underline{2} \underline{1}$$

$$\frac{(6,5)}{(2,1)} \cdot \frac{(4,3)}{(2,1)} \cdot \frac{(2,1)}{(2,1)} = 15 \cdot 6 \cdot 1 = 90 \text{ Monitors (D)}$$

09-

3 times of Pöw, 10 Pöw.

$$\frac{3}{2} \frac{10}{3} \frac{9}{2} \frac{8}{1} \frac{1}{1} \mid \frac{2160}{12} = 180 \text{ possibilities}$$

Pöw

$$180 \cdot 3 = 540 \text{ possibilities}$$

↑  
times of Pöw

(A)