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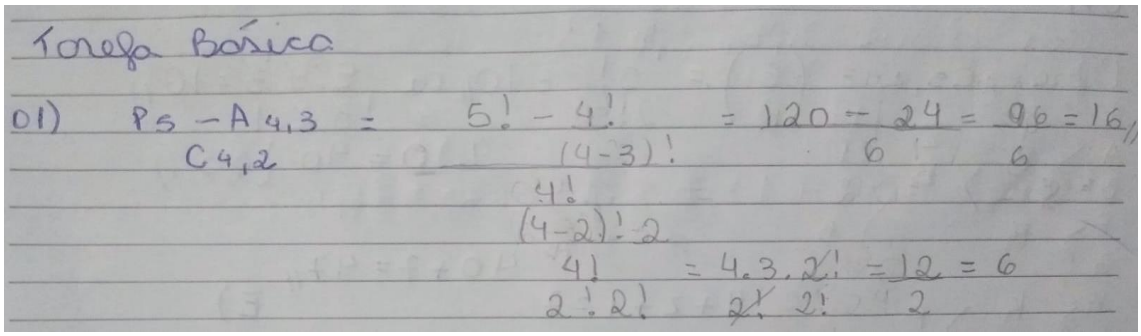
COMBINAÇÕES

Fiz do modo em que o professor passou nas vídeo aulas.



As outras estão nas folhas abaixo:

02) $\frac{8.7.6.5.4.3}{6\ 5\ 4\ 3\ 2\ 1} = \frac{20160}{720} = 28$ modos.

03)

$^{2}4.3.2 = 4$ $\quad$ $^{3}6.5 = 15$ $\quad$ $15.4 = 60$

$^{1}3.2.1$ $\quad$ 2.1

$C_{4,3}$ $\quad$ $C_{6,2}$

04) $\frac{n!}{p!(n-p)!} \quad \frac{5!}{3!(5-3)!} = \frac{5!}{3!2!} = \frac{5.4.3!}{3!2.1} = \frac{20}{2} = 10$

05)

$^{3}6.5 = 15$ $\quad$ $^{3}4.3 = 6$ $\quad$ 15 $\quad$ 90

2.1 $\quad$ 2.1 $\quad$ $\times 6$

$C_{6,2}$ $\quad$ $C_{4,2}$ $\quad$ 90

06)

MAT $\quad$ ING $\quad$ GEO

$4.3.2 = 4$ $\quad$ $4.3.2 = 4$ $\quad$ $4.3.2 = 4$ $\quad \therefore 4^3 = 64$

$3.2.1$ $\quad$ $3.2.1$ $\quad$ $3.2.1$ $\quad$ E)

$C_{4,3}$ $\quad$ $C_{4,3}$ $\quad$ $C_{4,3}$

07)

1º fase $C_{5,2} = \binom{5}{2} = \frac{5!}{2!3!} = 10$ ou $\frac{5.4.3}{3.2.1} = 10$

A, B, F, G, H, L, P

B, F, K, P

B

$4.10 = 40$

$\therefore 40 + 7 = 47$

$4 + 2 + 1 = 7$

E)

08)

$C_{3}^{6,2}$ $C_{4,2}$ $C_{2,2}$

$\frac{1^{3}6.5}{2.1}$ $\frac{1^{2}4.3}{2.1}$ $\frac{1.2.1}{2.1}$

$15 \cdot 6 \cdot 1 = 90_{11}$ D)

09) $C(10,1) = \frac{10!}{1!(10-1)!} = \frac{10.9!}{9!} = 10$

$C(10,2) = \frac{10!}{2!(10-2)!} = \frac{10!}{2!8!} = \frac{10.9.8!}{2.1.8!} = \frac{90}{2} = 45$

$C(10,3) = \frac{10!}{3!(10-3)!} = \frac{10!}{3!7!} = \frac{10.9.8.7!}{3.2.1.7!} = \frac{720}{6} = 120$

$10 + 45 + 120 = 175$

$175 \times 3 = 525$

$\boxed{525}$ A 11