

Por exemplo, se seu número de matrícula for 12.1.3579, temos que

12.1.3579
 ↑ ↑ ↑ ↑ ↑ ↑
 1° 2° 3° 4° 5° 6° 7°

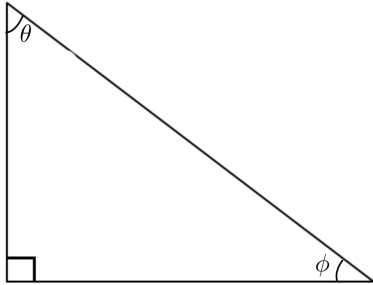
e a tabela deve ser preenchida assim:

xx	0	1	2	3	4	5	6	7	8	9
1°										
2°										
3°										
4°										
5°										
6°										
7°										

1. Mark the true alternative.
- (a) The vectorial product between collinear vectors is zero.
 (b) Vectors can not be multiplied by scalars.
 (c) Division between vectors is defined in Mathematics.
 (d) The result of summing a vector and a scalar is a scalar.
 (e) The result of a scalar product between vectors is a vector itself.

2. A particle of mass 2,7 kg is subject to an external force of 18,9 N. Calculate the acceleration in m/s^2 in a one-dimensional movement.
- (a)17,0 (b)9,4
 (c)3,1 (d)13,0
 (e)7,0

3. Consider the rectangle triangle of the figure below and knowing $\theta = 26^\circ$, determine ϕ in rad.



- (a)1,174 (b)1,059 (c)1,252 (d)1,117 (e)1,305

Fórmulas e Constantes

$$I = \frac{P_s}{4\pi r^2}; \quad E = hf; \quad p = \frac{hf}{c} = \frac{h}{\lambda}$$

$$hf = K_{\max} + \Phi; \quad \Delta\lambda = \frac{h}{mc}(1 - \cos\phi)$$

$$\frac{d^2\psi}{dx^2} + \frac{8\pi^2m}{h^2}[E - U(x)]\psi = 0$$

$$T \approx e^{-2bL}, \text{ onde } b = \sqrt{\frac{8\pi^2m(U_b - E)}{h^2}}$$

$$E_n = \left(\frac{h^2}{8mL^2} \right) n^2, \text{ para } n = 1, 2, 3, \dots$$

$$\psi_n(x) = A \sin\left(\frac{n\pi}{L}x\right), \text{ para } n = 1, 2, 3, \dots$$

$$\Delta x \Delta p = h/2\pi$$

$$\epsilon_0 = 8,854 \times 10^{12} \text{ F/m}; \quad \mu_0 = 1,257 \times 10^{-6} \text{ H/m}$$

$$c = 3,0 \times 10^8 \text{ m/s}; \quad h = 6,63 \times 10^{-34} \text{ J/s} = 4,14 \times 10^{-15} \text{ eV.s}$$

$$hc = 1240 \text{ eV.nm}$$

$$\text{Eletron : } mc^2 = 511 \text{ keV}$$

NÃO MARCAR										
un	—		—	—	—	—	—	—	—	—
GABARITO										
—	1	2	3	—	—	—	—	—	—	—
a				—	—	—	—	—	—	—
b				—	—	—	—	—	—	—
c				—	—	—	—	—	—	—
d				—	—	—	—	—	—	—
e				—	—	—	—	—	—	—
MATRÍCULA										
—	0	1	2	3	4	5	6	7	8	9
1°										
2°										
3°										
4°										
5°										
6°										
7°										

MATRÍCULA:

NOME:

TURMA: