2^a Lista de Exercícios - Física para Matemática I
Prof. Eduardo

GABARITO

1. (a) $8\mathbf{i}-2\mathbf{j}$, $-2\mathbf{i}+10\mathbf{j}$, $21\mathbf{i}-10\mathbf{j}$, $-8\mathbf{i}+2\mathbf{j}$; (b) $A = 5$.

2. (a) $v_x = 1,4$ m/s e $v_y = -1,3$ m/s; (b) $1,9$ m/s e $\theta = -43^o$

3. (a) $v_C = 0,008$ m/s; (b) $\theta = 0^o$; (c) $v_B = 0,11$ m/s; (d) $\theta = -63^o$.

4. $\theta = 60^o$

5. $t_A = \frac{V_0 \text{sen}(\theta) + \sqrt{V_0^2 \text{sen}^2(\theta) - 2gH}}{g}$

6. $g_P = 0,6\ m/s^2$

7. $\theta = 52,4^o$

10. $14,2$ metros atrás da pessoa.

11. $5,6$ s

12. $R(1 + \sqrt{1 + \frac{d}{h}})$

13. (a) $T = 12\ s$; (b) $a = 4,1\ m/s^2$; (d) Igual ao item (b)

14. $\mathbf{a_c} = (3,0 m/s^2)\mathbf{i} + (6,0 m/s^2)\mathbf{j}$

15. $a = 162 m/s^2$

16. (a) $t = 14$ s; (b) $t = 70$ s

17. $\theta = 60^o$

18. (a) $4,7$ m/s e $\theta = 25,6^o$ no sentido leste para sul; (b) $t = 190$ s; (c) $x = 380$ m.