

Física Geral I: Soluções dos exames de 2015/16

1º Teste

1. (a) $x(t) = (0.02 \text{ m}) \sin(3\pi t)$
(b) $v_{\max} = 0.188 \text{ m/s}$
(c) 0.333 s
(d) $a_{\max} = 1.777 \text{ m/s}^2$
(e) 0.5 s
(f) 12 cm
2. $m = 14.69 \text{ kg}$
3. 3.79 m

2º Teste

1. (a) 7.5 kJ
(b) 900 K
2. (a) 3
(b) 520 km/s
3. (a) 0.667
(b) 0.00109

Exame

1. (a) 0.4 m/s
(b) 1.6 m/s^2
(c) 0.32 m/s
(d) 0.96 m/s^2
(e) 0.232 s
2. (a) 0.5 Hz
(b) 3.14 rad/s
(c) 3.14 rad/m
(d) $y(x, t) = 0.1 \sin(\pi x - \pi t)$
(e) $y(1.5 \text{ m}, t) = 0.1 \sin(4.71 - \pi t)$
(f) 0.314 m/s
3. 56.31°

4. (a) 7.5 kJ
(b) 900 K
5. (a) 0.667
(b) 0.00109