

Fabulosa Física

Revisão de Problemas da Tarefa

1-1

$$1\text{milha} \times \frac{5280\text{pés}}{\text{milha}} \times \frac{12\text{pol}}{\text{pés}} \times \frac{2.54\text{cm}}{\text{pol}} \times \frac{1\text{m}}{100\text{cm}} \times \frac{1\text{km}}{1000\text{m}} = 1.6093\text{km}$$

1-2

$$1\frac{\text{g}}{\text{cm}^3} \times \frac{1\text{kg}}{1 \times 10^3\text{g}} \times \frac{1 \times 10^6\text{cm}^3}{1\text{m}^3} = 1 \times 10^3 \frac{\text{kg}}{\text{m}^3}$$

1-3a)

$$\frac{60\text{min}}{\text{hr}} \times \frac{5280\text{pés}}{1\text{min}} \times \frac{1\text{hr}}{60\text{min}} \times \frac{1\text{min}}{60\text{seg}} = 88 \frac{\text{pés}}{\text{seg}}$$

1-3b)

$$\frac{100\text{km}}{\text{hr}} \times \frac{1000\text{m}}{1\text{km}} \times \frac{1\text{hr}}{60\text{min}} \times \frac{1\text{min}}{60\text{seg}} = 27.8 \frac{\text{min}}{\text{seg}}$$

1-4

$$170\text{lbs} \times \frac{1\text{kg}}{2.205\text{lbs}} = 77.1\text{kg}$$

1-5

$$1\text{day} \times \frac{24\text{hr}}{1\text{day}} \times \frac{3600\text{seg}}{1\text{hr}} = 86,400 \frac{\text{seg}}{\text{day}}$$

$$86400 \frac{\text{seg}}{\text{dia}} \times \frac{365\text{dias}}{1\text{ano}} = 3,153,600 \frac{\text{seg}}{\text{ano}}$$

1-6

$$1.30 \frac{\text{deutschmark}}{\text{litro}} \times \frac{\$0.40}{1\text{deutschmark}} \times \frac{3.788\text{litro}}{1\text{gal\~ao}} = \$1.97/\text{gal\~ao}$$

1-7

$$\frac{17\text{km}}{\text{litro}} \times \frac{1\text{milha}}{1.609\text{km}} \times \frac{3.788\text{litros}}{1\text{gal\~ao}} = 40 \text{mi}/\text{gal\~ao}$$

1-8

$$\frac{150000 \text{furlongs}}{2 \text{fortnight}} \times \frac{0.125\text{milhas}}{1 \text{furlong}} \times \frac{1 \text{fortnight}}{14 \text{dias}} \times \frac{1 \text{dia}}{24 \text{hr}} = 55.8 \text{milhas}/\text{hr}$$

1-9

$$2\text{litros} \times \frac{1000\text{cm}^3}{\text{litro}} \times \frac{1\text{pol}^3}{16.39\text{cm}^3} = 122 \text{pol}^3$$

1-10 a)

$$\frac{\pi - \frac{22}{7}}{\pi} \times 100 = 0.04\% \text{erro}$$

b)

$$\frac{\pi - \frac{355}{113}}{\pi} \times 10 = 8.5 \times 10^{-6} \% \text{erro}$$