

$L = 1.0\text{m}$ pendulum

$$T = 2\pi \sqrt{\frac{L}{g}}$$

a.) On Earth: $g = 9.8\text{ m/s}^2$

$$T = \underline{2.007\text{ s}}$$

b.) On Venus:

$$g = \frac{GM_{\text{ven}}}{R_{\text{ven}}^2}$$

From Table 13.2 (p. 348)

$$M_{\text{ven}} = 4.88 \times 10^{24}\text{ kg}$$

$$R_{\text{ven}} = 6.06 \times 10^6\text{ m}$$

$$\text{So, } g = 8.863\text{ m/s}^2$$

$$\text{So, } T = \underline{2.111\text{ s}}$$