

$$f := x \rightarrow \sin(x) \quad 17.00030000 \quad (1)$$

$$f := x \mapsto \sin(x) \quad (2)$$

$$fp := D(f) \quad fp := \cos \quad (3)$$

$$L := x \rightarrow fp\left(\frac{\text{Pi}}{3}\right) \cdot \left(x - \frac{\text{Pi}}{3}\right) + f\left(\frac{\text{Pi}}{3}\right) \quad (4)$$

$$L := x \mapsto fp\left(\frac{\pi}{3}\right) \left(x - \frac{\pi}{3}\right) + f\left(\frac{\pi}{3}\right)$$

$$L\left(\frac{62 \cdot \text{Pi}}{180}\right) \quad \frac{\pi}{180} + \frac{\sqrt{3}}{2} \quad (5)$$

$$\text{evalf}(\%) \quad 0.8834786965 \quad (6)$$

$$f\left(\frac{\text{Pi}}{3}\right) \quad \frac{\sqrt{3}}{2} \quad (7)$$

$$\text{evalf}(\%) \quad 0.8660254040 \quad (8)$$

$$-\frac{1}{2} \cdot \frac{\text{Pi}}{3} + \frac{\text{sqrt}(3)}{2} \quad -\frac{\pi}{6} + \frac{\sqrt{3}}{2} \quad (9)$$

$$\text{evalf}(\%) \quad 0.3424266282 \quad (10)$$

Falling Body

$$s := t \rightarrow -4.9 \cdot t^2 + 50 \cdot t + 10 \quad s := t \mapsto (-1) 4.9 t^2 + 50 t + 10 \quad (11)$$

$$s(t) \quad -4.9 t^2 + 50 t + 10 \quad (12)$$

$$sp := D(s) \quad sp := t \mapsto -9.8 t + 50 \quad (13)$$

$$\text{evalf}(\text{solve}(sp(t) = 0)) \quad 5.102040816 \quad (14)$$

$$s(5.102040816) \quad 137.5510204 \quad (15)$$

$$\text{solve}(s(t) = 0)$$

$$\begin{aligned} & -0.1962265248 + 10.40030816 && -0.1962265248, 10.40030816 && \mathbf{(16)} \\ & \frac{\%}{2} && 10.20408164 && \mathbf{(17)} \\ & && 5.102040820 && \mathbf{(18)} \end{aligned}$$