

$$V := r \rightarrow \frac{4}{3} \cdot \text{Pi} \cdot r^3$$

$$V := r \mapsto \frac{4 \cdot \pi \cdot r^3}{3} \quad (1)$$

$$V(10.001) - V(10)$$

$$1.256763 \quad (2)$$

$$4 \cdot \text{Pi} \cdot .1$$

$$1.256637062 \quad (3)$$

$$-\frac{\text{sqrt}(2) \cdot \text{Pi}}{120} + \frac{\text{sqrt}(2)}{2}$$

$$-\frac{\sqrt{2} \pi}{120} + \frac{\sqrt{2}}{2} \quad (4)$$

$$\text{evalf}(\%)$$

$$0.6700827565 \quad (5)$$

$$\sin\left(\frac{42 \cdot \text{Pi}}{180}\right)$$

$$\sin\left(\frac{7 \pi}{30}\right) \quad (6)$$

$$\text{evalf}(\%)$$

$$0.6691306063 \quad (7)$$

$$f := x \rightarrow \text{sqrt}(x)$$

$$f := x \mapsto \sqrt{x} \quad (8)$$

$$fp := D(f)$$

$$fp := x \mapsto \frac{1}{2 \cdot \sqrt{x}} \quad (9)$$

$$y := x \rightarrow fp(100) \cdot (x - 100) + f(100)$$

$$y := x \mapsto fp(100) \cdot (x - 100) + f(100) \quad (10)$$

$$y(97)$$

$$-\frac{3 \sqrt{100}}{200} + 10 \quad (11)$$

$$\text{simplify}(\%)$$

$$\frac{197}{20} \quad (12)$$

$$\text{evalf}(\%)$$

$$9.850000000 \quad (13)$$

$$\text{evalf}(\text{sqrt}(97))$$

$$9.848857802 \quad (14)$$

