

$$f := x \rightarrow x \cdot \text{sqrt}(9 - x)$$

$$f := x \mapsto x \sqrt{9 - x} \quad (1)$$

$$fp := \text{simplify}(D(f))$$

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

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

$$x \mapsto \sqrt{9 - x} - \frac{x}{2\sqrt{9 - x}} \quad (3)$$

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

$$x \mapsto \sqrt{9 - x} - \frac{x}{2\sqrt{9 - x}} \quad (4)$$

$$fpp := D(fp)$$

$$fpp := x \mapsto -\frac{1}{\sqrt{9 - x}} - \frac{x}{4(9 - x)^{3/2}} \quad (5)$$

$$\text{solve}(fp(x) = 0)$$

$$6 \quad (6)$$

$$\text{solve}(fpp(x) = 0)$$

$$12 \quad (7)$$

$$\text{evalf}\left(\frac{(-8 - \text{sqrt}(70))}{6}\right)$$

$$-2.727766711 \quad (8)$$

$$\text{evalf}\left(\frac{(-8 + \text{sqrt}(70))}{6}\right)$$

$$0.061100045 \quad (9)$$

$$\frac{\text{arcsin}(\%) \cdot 180}{\text{Pi}}$$

$$3.502956564 \quad (10)$$