

Using half-angle formula for $\sin\left(\frac{19\pi}{12}\right)$

$$-\frac{\sqrt{2 + \sqrt{3}}}{2},$$

$$-\frac{\sqrt{2 + \sqrt{3}}}{2}$$

(1)

evalf(%)

$$-0.9659258263$$

(2)

Using angle sum formula for $\sin\left(\frac{19\pi}{12}\right)$

$$-\frac{(\sqrt{3} + 1)}{2 \cdot \sqrt{2}},$$

$$-\frac{\sqrt{3} + 1}{2\sqrt{2}}$$

(3)

evalf(%)

$$-0.9659258262$$

(4)

They look very different but they are the same!