

14.27

fredag 23 december 2022

08:02

$$a) \int_0^{2\pi} \sqrt{(-\sin t)^2 + (\cos t)^2} dt = \int_0^{2\pi} \sqrt{1} dt = [t]_0^{2\pi} = \underline{\underline{2\pi}} \quad l.c$$

$$b) \int_0^{2\pi} \sqrt{(-r \sin t)^2 + (r \cos t)^2} dt = \int_0^{2\pi} \sqrt{r^2 ((-\sin t)^2 + (\cos t)^2)} dt =$$

$$= r \int_0^{2\pi} \sqrt{1} dt = r [t]_0^{2\pi} = \underline{\underline{r2\pi}} \quad l.c$$

