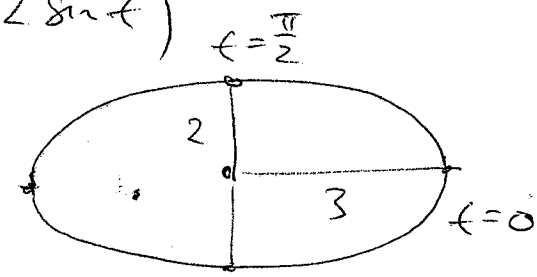
4.4

ELIPSA $\frac{x^2}{9} + \frac{y^2}{4} = 1$

PARAMETRIZACE $(3\cos t, 2\sin t) = c(t)$



$c'(t) = (-3\sin t, 2\cos t)$

$c''(t) = (-3\cos t, -2\sin t)$

$$\varkappa_2(t) = \frac{\begin{vmatrix} -3\sin t & -3\cos t \\ 2\cos t & -2\sin t \end{vmatrix}}{(9\sin^2 t + 4\cos^2 t)^{\frac{3}{2}}} = \frac{6}{(4 + 5\sin^2 t)^{\frac{3}{2}}}$$

$$\varkappa_2'(t) = -\frac{90\cos t \sin t}{(4 + 5\sin^2 t)^{\frac{5}{2}}}$$

EXTRÉMY $t = 0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}$

$0, \pi$: $\varkappa_2(t) = \frac{6}{4^{\frac{3}{2}}} = \frac{3}{4}$

$\frac{\pi}{2}, \frac{3\pi}{2}$: $\varkappa_2(t) = \frac{6}{9^{\frac{3}{2}}} = \frac{2}{9}$