

1002.

$$A = \int_C y dx - x dy$$

$$C: \begin{cases} x^2 + y^2 = 1 \\ (1,0) \rightarrow (0,1) \end{cases}$$

$$C: \begin{cases} x = \cos t & dx = -\sin t dt \\ y = \sin t & dy = \cos t dt \end{cases} \quad t: 0 \rightarrow \frac{\pi}{2}$$

$$A = \int_{t=0}^{\frac{\pi}{2}} (\sin t(-\sin t) - \cos t \cos t) dt = -\frac{\pi}{2}$$