Consideramos las siguientes curvas orientadas simples:

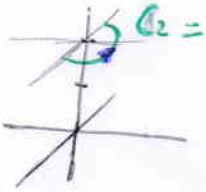
$\gamma_1 : [\pi, 2\pi] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (-\cos t, \operatorname{sen} t, 2)$

$C_1 = \gamma_1([\pi, 2\pi])$

$\gamma_2 : [0, \pi] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (\cos t, \operatorname{sen} t, 2)$



$C_2 = \gamma_2([0, \pi])$

$\gamma_3 : [\pi, 2\pi] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (\sqrt{3}\cos t, \sqrt{3}\operatorname{sen} t, 0)$

$C_3 = \gamma_3([\pi, 2\pi])$

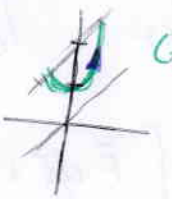
$\gamma_4 : [0, \pi] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (\sqrt{3}\cos t, \sqrt{3}\operatorname{sen} t, 0)$

$C_4 = \gamma_4([0, \pi])$

$\gamma_5 : [\pi, 2\pi] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (\cos t, 0, \operatorname{sen} t + 2)$



$C_5 = \gamma_5([\pi, 2\pi])$

$\gamma_6 : [1, \sqrt{3}] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (t, 0, 3 - t^2)$

$C_6 = \gamma_6([1, \sqrt{3}])$

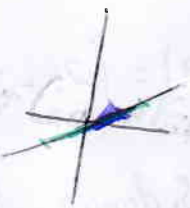
$\gamma_7 : [-1, -\sqrt{3}] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (t, 0, 3 - t^2)$

$C_7 = \gamma_7([-1, -\sqrt{3}])$

$\gamma_8 : [-\sqrt{3}, \sqrt{3}] \longrightarrow \mathbb{R}^3$

$t \longrightarrow (t, 0, 0)$



$C_8 = \gamma_8([-\sqrt{3}, \sqrt{3}])$