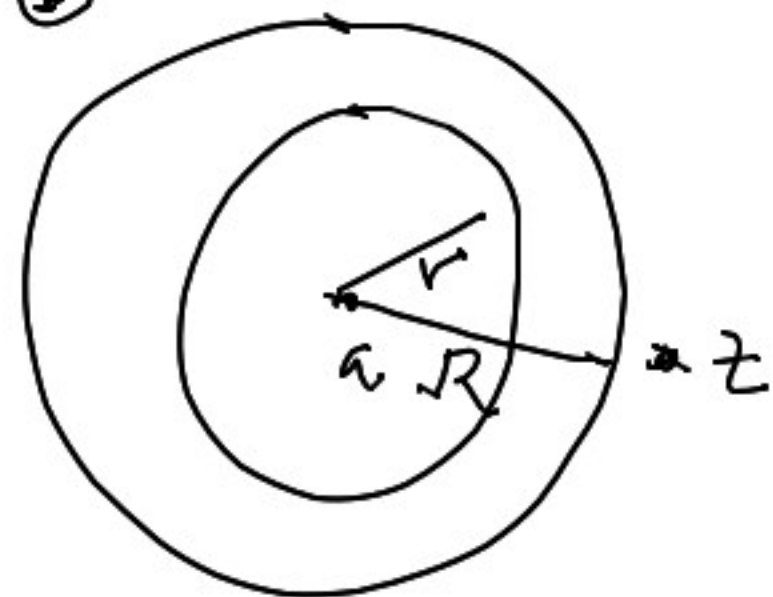


Tema 7: Ejercicios

④



Tomamos $r < R < |z - a|$

$$f(w) = \frac{1}{w - z}$$

$$\left. \begin{array}{l} f \in \mathcal{H}(\underline{D(a, R)}) \\ + \\ D(a, R) \text{ es anillada} \end{array} \right\} \begin{array}{l} \text{T.C.} \\ \Rightarrow \\ \text{Dom.} \\ \text{es anillado} \end{array}$$

$$\Rightarrow \int_{\check{C}(a, r)} f(w) dw = 0$$

$$*) \text{ Si } z \in D(a, r) \xRightarrow[\text{cf.}]{\text{Th. Cauchy}} \int_{\check{C}(a, r)} \frac{1}{w - z} dw = 2\pi i$$

$$\int_{\check{C}(a, r)} \frac{1}{w - z} dw = 2\pi i$$