The loop for large r, $|g(z)| \approx r^n$

$\therefore$ very large loop, most importantly,

it encloses $(0,0)$

(4) The large loop shrinks to the tiny one

if r changes from very large to very small.

(like a shrinking rubber band).

There is an intermediate value of r

s.t. $(0,0)$ is on the loop ($\therefore$ loop changes

from enclosing to not enclosing $(0,0)$, $(0,0)$

has to "escape").

(5) A pt on the loop of parameter r

comes from plotting $g(r\cos\theta)$ for some θ.

but $g(\underbrace{r\cos\theta}_{\text{"}z\text{" soln to } g}) \neq 0$ at the pt $(0,0)$ escapes.

"z" soln to g.!!