

85b

$$g(z) = 3z + 6$$

$$f(z) = z^4 + 3z + 1$$

16 6 1

$$|z| = 2$$

$$|f(z) - g(z)| = |z^4 - 5| \stackrel{? \swarrow \text{NIE}}{<} |z^4 + 3z + 1| = |f(z)|$$

$\nwarrow |z|=2$

$$g(z) = z^4$$

$$|f(z) - g(z)| = |3z + 1| \leq |3z| + 1 = 7 < 9 \leq |f(z)|$$

$|z|=2 \rightarrow$

$$|f(z)| = |z^4 + 3z + 1| \geq |z|^4 - 3|z| - 1 \geq 16 - 6 - 1 = 9$$

z to Równości f ma $\in D(0, 2)$ tyle $\overline{D}(0, 2)$, 6 g , $|z|^4$ (Ling. \leq z z^4)

z z z^4 (a): $0 \leq 4 - 1 = 3$

