

85c)

$$f(z) = \sin z - z = \sum_{n=1}^{\infty} \frac{(-1)^n z^{2n+1}}{(2n+1)!} \quad D(0,1)$$

Nred. $g(z) = \frac{-z^3}{3}$ da $|z|=1 \quad |g(z)| = \frac{1}{3}$

$$|f(z) - g(z)| = \left| \sum_{n=2}^{\infty} \frac{(-1)^n z^{2n+1}}{(2n+1)!} \right| \leq \sum_{n=2}^{\infty} \frac{1}{(2n+1)!} =$$

$$\sum_{n=2}^{\infty} \frac{1}{(2n+1)!} \leq \sum_{n=5}^{\infty} \frac{1}{n!} = e - \sum_{h=0}^4 \frac{1}{h!} < \frac{1}{3}$$

$\underbrace{1 + 1 + \frac{1}{2} + \frac{1}{2} + \frac{1}{24}}_{2,718}$

Tv. Roudig
=> f

na 3 pierwiastki na $D(0,1)$