

Względna zmiana oamy .

$$\left| \frac{(x+h) - x}{x} \right| = \left| \frac{h}{x} \right|$$

Względna zmiana wyznika:

$$\left| \frac{f(x+h) - f(x)}{f(x)} \right|$$

$\text{cond}(f(x))$ - warunkowanie zadania

$$\text{cond}(f(x)) = \frac{\left| \frac{f(x+h) - f(x)}{f(x)} \right|}{\left| \frac{h}{x} \right|} = \left| \frac{f(x+h) - f(x)}{f(x)} \right| \cdot \left| \frac{x}{h} \right| =$$

$$= \left| \frac{f(x+h) - f(x)}{h} \right| \cdot \left| \frac{x}{f(x)} \right| = |f'(x)| \cdot \left| \frac{x}{f(x)} \right| = \left| \frac{x \cdot f'(x)}{f(x)} \right|$$