

Rozwiązujemy nierówność

$$f(x) > g(x)$$

$$4x^2 + x + 3 > x + 4$$

$$4x^2 + \cancel{x} - \cancel{x} + 3 - 4 > 0$$

$$4x^2 - 1 > 0$$

$$4x^2 - 1 = 0$$

$$4x^2 = 1 \quad | :4$$

$$x^2 = \frac{1}{4} \quad | \sqrt{}$$

$$\sqrt{x^2} = \sqrt{\frac{1}{4}}$$

$$|x| = \frac{1}{2}$$

$$x_1 = \frac{1}{2} \quad \vee \quad x_2 = -\frac{1}{2}$$

lub

$$4x^2 - 1 = 0$$

$$(2x-1)(2x+1) = 0$$

$$2x-1=0$$

$$2x=1 \quad | :2$$

$$x = \frac{1}{2}$$

$\vee$

$$2x+1=0$$

$$2x=-1 \quad | :2$$

$$x = -\frac{1}{2}$$



$$x \in (-\infty, -\frac{1}{2}) \cup (\frac{1}{2}, +\infty)$$