Find glb and lub of the set.

$\left\{ \frac{1}{2+x^2} \; ; \; -6 \leq x \leq 4 \right\}$

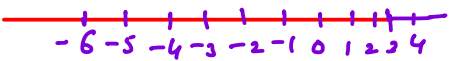
$y = \frac{1}{2+x^2}$

$-6 \leq x \leq 4 < 6$

$-6 \leq x < 6$

$|x| \leq 6$

$x^2 \leq 36 \quad -①$



$$x^2 \geq 0 \quad \text{--(11)}$$

from (1) & (11)

$$0 \leq x^2 \leq 36$$

$$2 \leq 2 + x^2 \leq 38$$

$$\frac{1}{2} \geq \frac{1}{2+x^2} \geq \frac{1}{38}$$

$$\frac{1}{38} \leq \frac{1}{2+x^2} \leq \frac{1}{2}$$

$$l.u.b = \frac{1}{2}$$

$$g.l.b = \frac{1}{38}$$