$$(x+3)(x+2) = x^2 + 5x + 6 \ge x^2$$

$$(x+3)(x+2) = x^2 + 5x + 6$$

 $\ge x^2$ (1)

$$(x+3)(x+2) = x^2 + 5x + 6$$

$$\geq x^2$$
 (2)