



Air maths tuition

Interact, engage and perform

Modulus Inequalities (3)

$x+6 > |3x+2|$

$x+6 > 0$

$\therefore x > -6$

$(x+6)^2 > (3x+2)^2$

$\therefore x^2 + 12x + 36 > 9x^2 + 12x + 4$

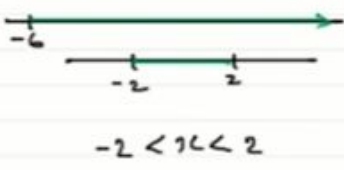
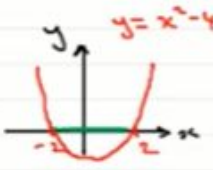
$\therefore 0 > 8x^2 - 32$

$\therefore 0 > x^2 - 4$

$\therefore x^2 - 4 < 0$

$\therefore (x-2)(x+2) < 0$

$\therefore \text{C.V.'s } x=2, x=-2$



$(A): x+6 = -3x-2$

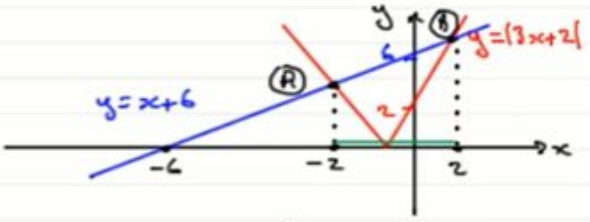
$\therefore 4x = -8$

$\therefore x = -2$

$(B): x+6 = 3x+2$

$\therefore 4 = 2x$

$\therefore x = 2$



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