

## C3- S5 PRACTICE

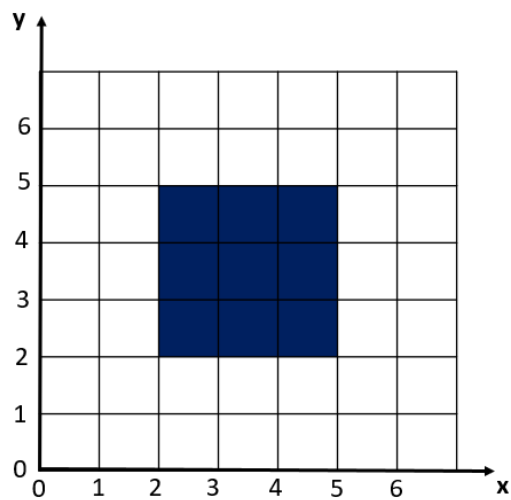
### SQUARE CONDITIONS REVERSE

Draw the shape that matches with the boolean expression

EXAMPLE :

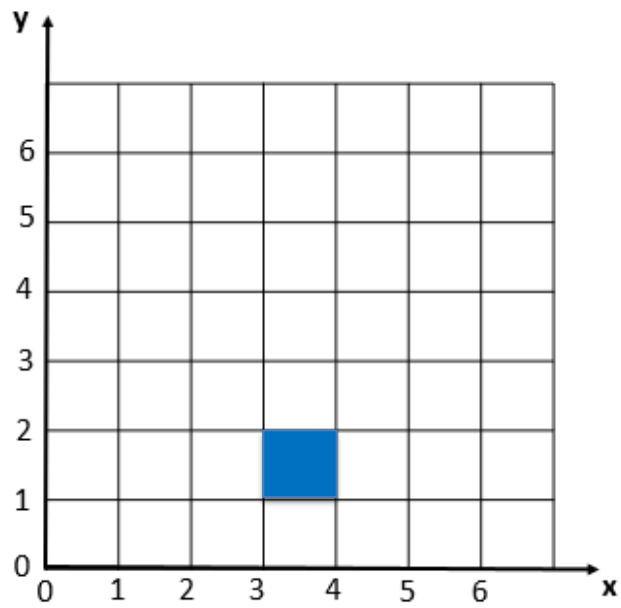
$(x > 2 \text{ and } x < 5) \text{ and } (y > 2 \text{ and } y < 5)$

SOLUTION :



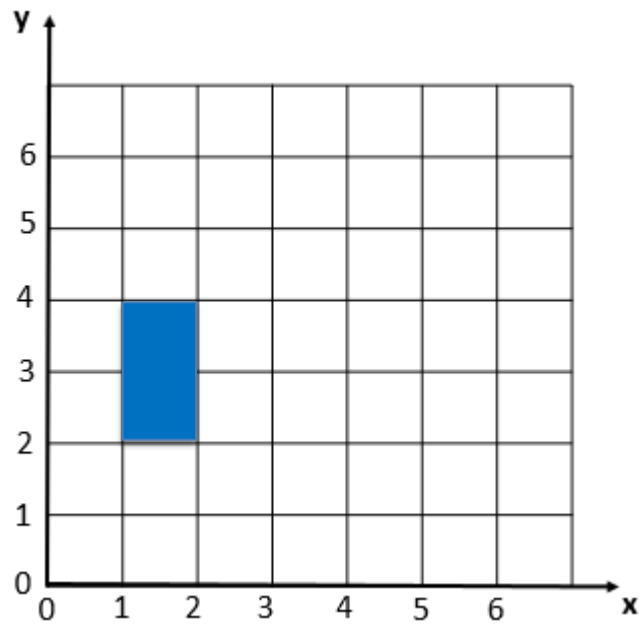
REVERSE-CONDITION 1 :

$$(x > 3 \text{ and } x < 4) \text{ and } (y > 1 \text{ and } y < 2)$$



REVERSE-CONDITION 2 :

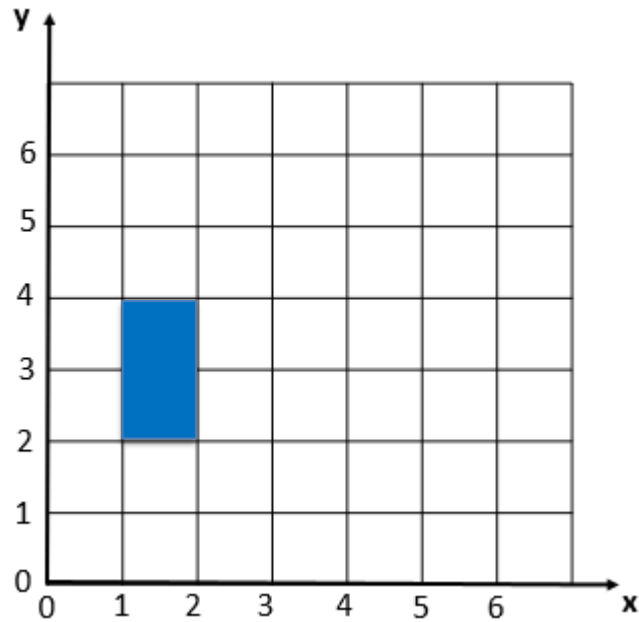
$$(x > 1 \text{ and } x < 2) \text{ and } (y < 4 \text{ and } y > 2)$$



REVERSE-CONDITION 3 :

$$(x > 1 \text{ and } x < 2) \text{ or } (y < 4 \text{ and } y > 2)$$

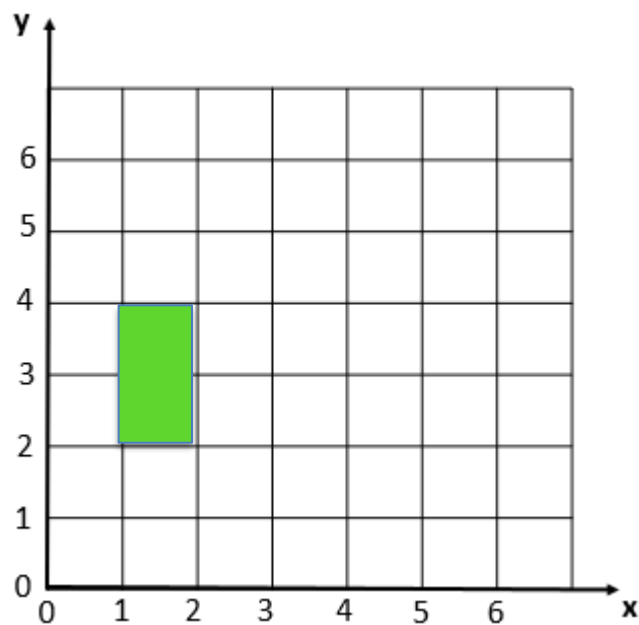
Same than pervious



REVERSE-CONDITION 4 :

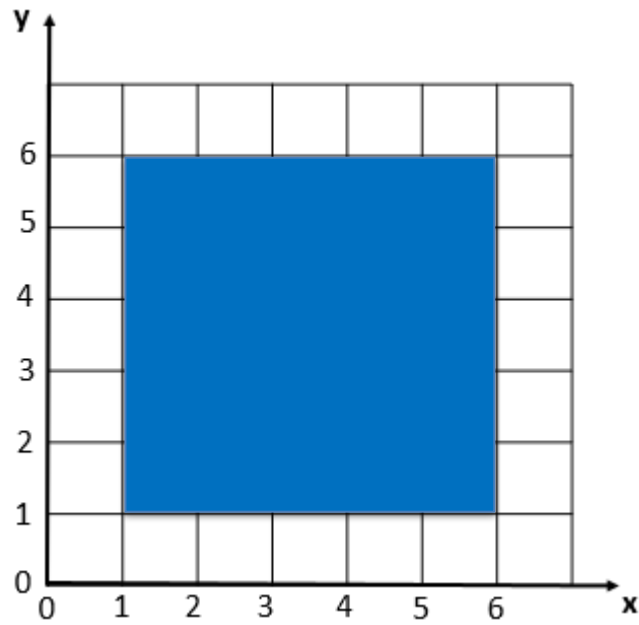
$$((x > 1 \text{ and } x < 2) \text{ and } (y < 4 \text{ and } y > 2)) \text{ or } ((x > 1 \text{ and } x < 2) \text{ and } (y < 4 \text{ and } y > 2))$$

Can be simplified.



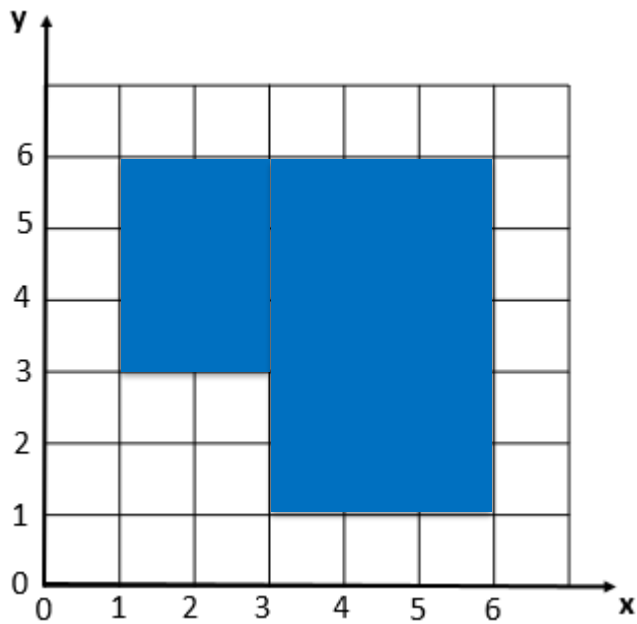
REVERSE-CONDITION 5 :

$(x > 1 \text{ and } x < 6) \text{ and } (y > 1 \text{ and } y < 6) \text{ and } x > 3$



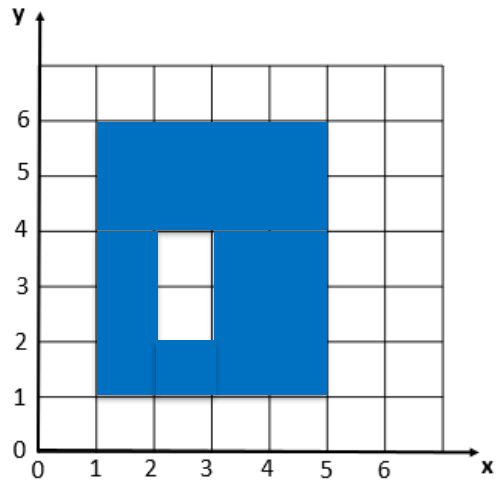
REVERSE-CONDITION 9 :

$(x > 1 \text{ and } x < 6) \text{ and } (y > 1 \text{ and } y < 6) \text{ and not } (x < 3 \text{ and } y < 3)$



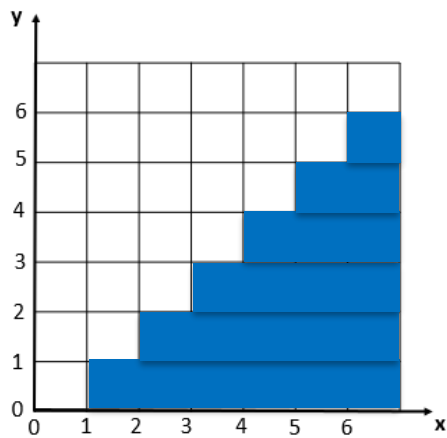
REVERSE-CONDITION 10 :

$(x > 1 \text{ and } x < 5) \text{ and } (y > 1 \text{ and } y < 6) \text{ and not}(x > 2 \text{ and } x < 3 \text{ and } y > 2 \text{ and } y < 4)$



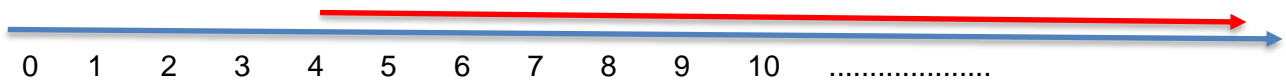
REVERSE-CONDITION 11 :

$x - y > 0 \Leftrightarrow x > y : x > 1, y <= 1 \quad x > 2, y <= 2 \quad x > 3, y <= 3 \quad \dots\dots$



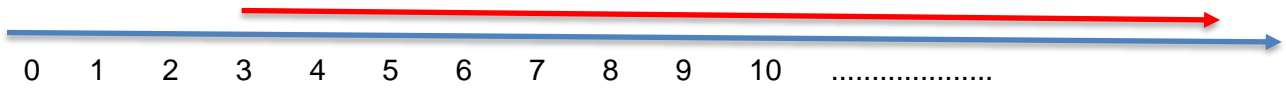
CONDITION 8:

If  $(a \geq 1 \text{ or } a \geq 4) : a > 4$



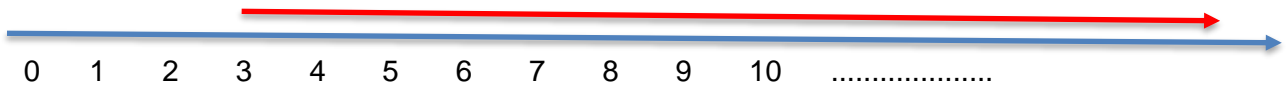
CONDITION 9:

If  $(a \geq 3 \text{ and } a > 3) : a > 3$



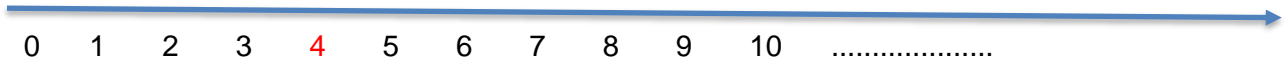
CONDITION 10:

If  $(a \geq 3 \text{ or } a > 3): a > 3$



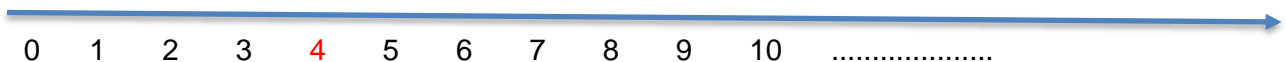
CONDITION 11:

If  $(a \geq 4 \text{ and } a \leq 4): a = 4$



CONDITION 12:

If  $(a > 4 \text{ or } a < 4): a = 4$



CONDITION 13:

If  $(a \geq 4 \text{ or } a \leq 4) : a = 4$

