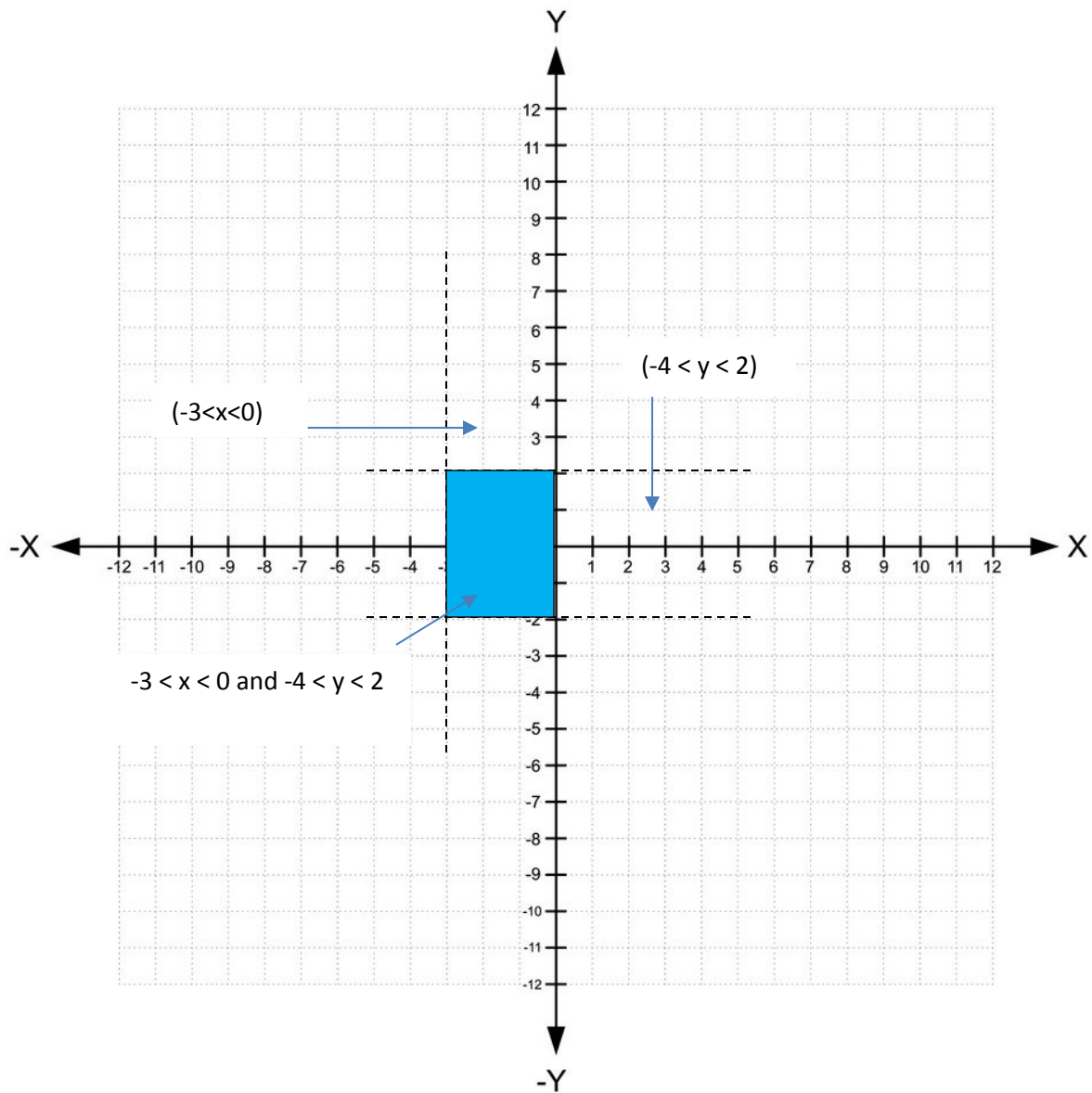Assignment: part 5   Inequalities - Level 8 - Mathematics

Solution:
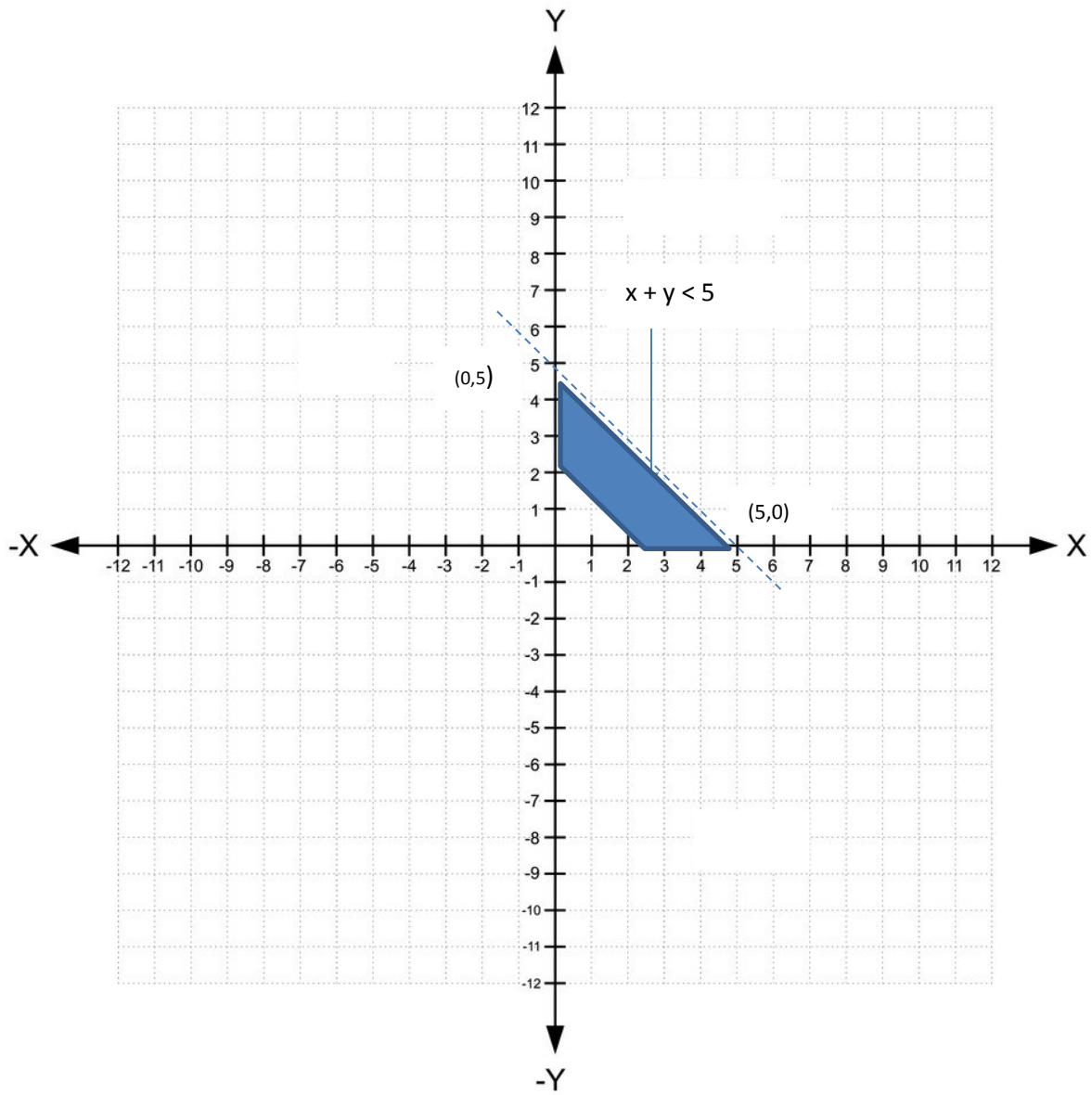
Exercise 17:

Q16) -3 < x < 0 and -4 < y < 2

Q18) x + y < 5
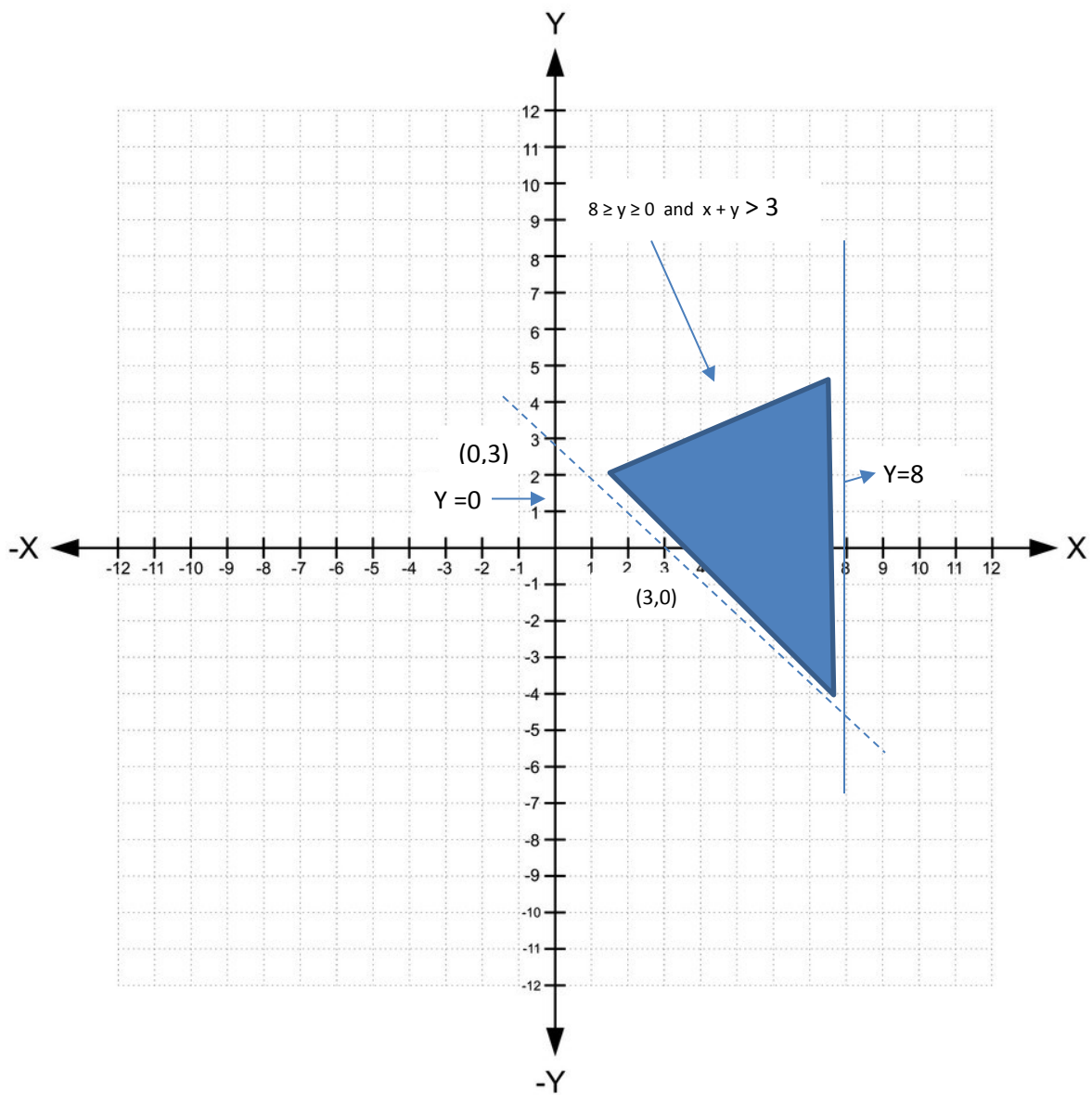
X	0	5
Y	5	0

Q22) $8 \geq y \geq 0$ and $x + y > 3$

$Y = 8$ $Y = 0$ and $x + y > 3$

x	0	3
y	3	0

$8 \geq y \geq 0$ and $x + y > 3$

(0,3)

Y =0

Y=8

(3,0)

Q20) x ≥ 0 and y ≥ 0 and x + y ≤ 7
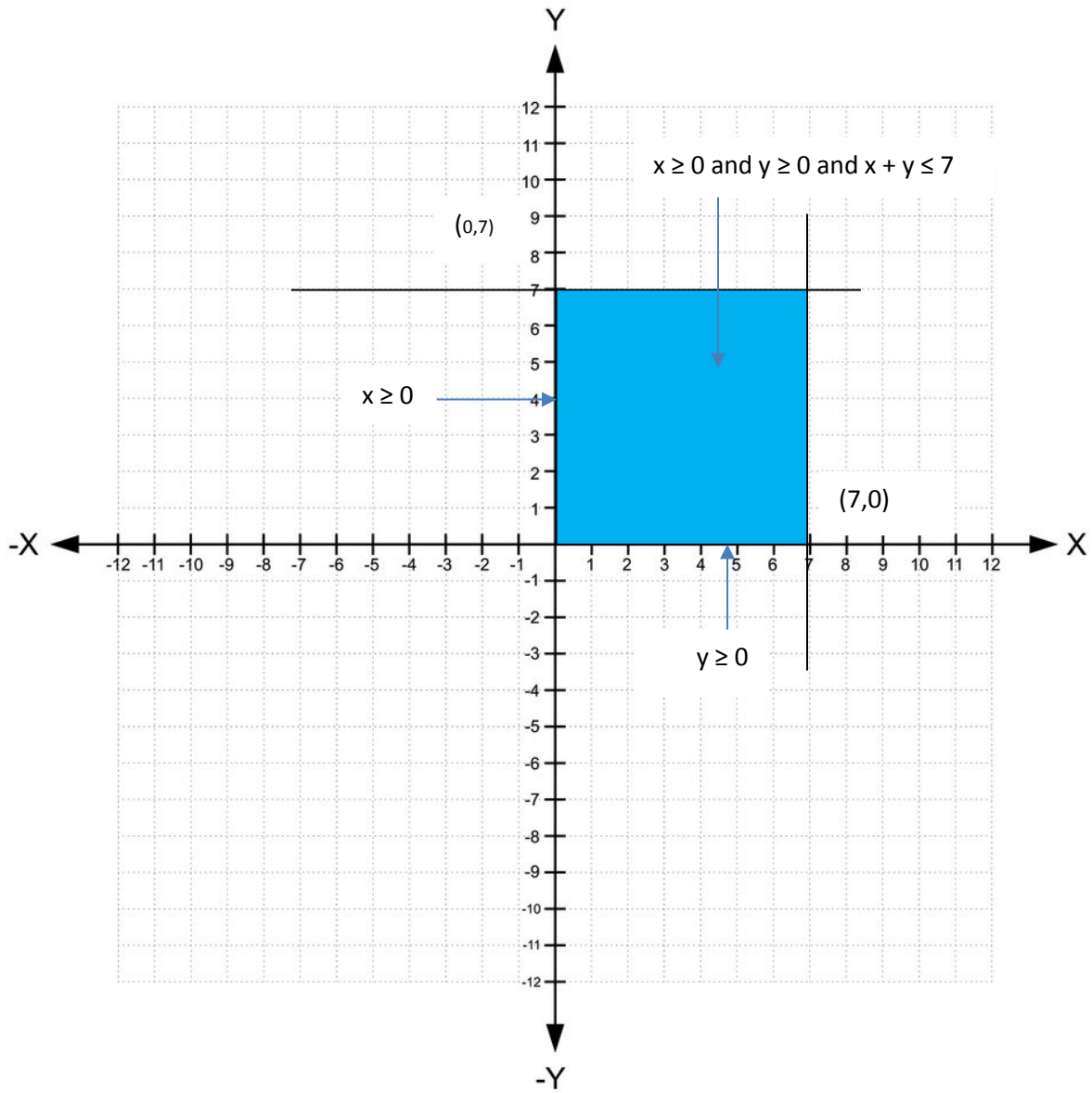
Q12)   -2 < x < 2   x = 2; x = -2
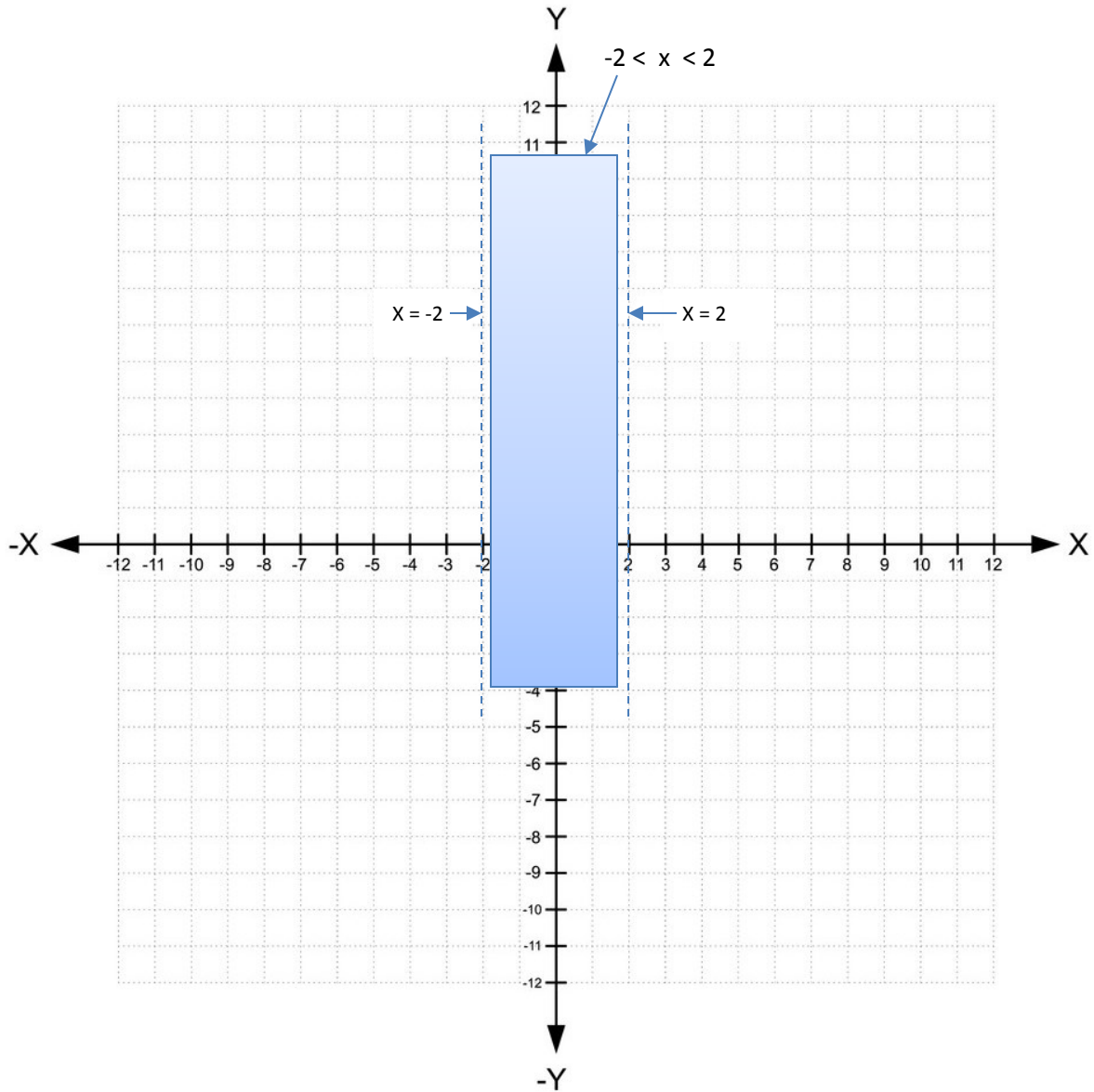
Q24) 3x + 2y ≤ 18   and x ≥ 0 and y ≥ 0

$3x \leq 18$ $2y \leq 18$

$X \leq 18/3$ $y \leq 18/2$

$X \leq 6$ $y \leq 9$

Y

12
11
10
9
8
7
6
5
4
3
2
1

(0,9)

3x + 2y ≤ 18   and x ≥ 0

(6, 0)

-X
-12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1   1 2 3 4 5 6 7 8 9 10 11 12
X

-1
-2
-3
-4
-5
-6
-7
-8
-9
-10
-11
-12

-Y