AL MOATTASSEM INTERNATIONAL SCHOOL - JUBAIL

Level - 8 Mathematics

Revision worksheet - 3

Ch - 5 Algebra 2

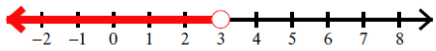
Inequalities - solved

Part 1

Solve each inequality and graph its solution.

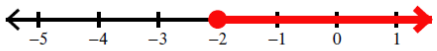
1) $0 > 3x - 3 - 6$

0 > 3x - 9; 3x< 9; x < 3



2) $4x + 1 - 1 \geq -8$

4x ≥ -8; x≥-2

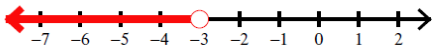


3) $-1 \leq 2n + 4 - 5$

-1 ≤ 2n - 1; n ≥ 0

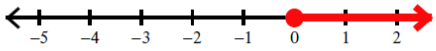
4) $-6 > 5n + 5 + 4$

-6 > 5n +9; 5n< -15; n< -3



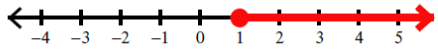
5) $0 \leq 2n + 3n$

0 ≤ 5n; n ≥ 0



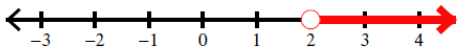
6) $2p - 4p \leq -2$

-2p ≤ -2; 2p ≥ 2; p ≥ 1



7) $7 < -(-k-3)+2$

7 < k + 3 + 2; k> 7 - 5; k > 2

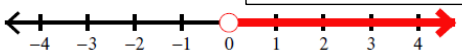


8) $3-2(n-4)>-1$

3 - 2n + 8 > -1; -2n > -1-11; n < 6

9) $-5(1-4a)>-5$

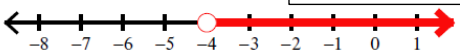
-5 + 20a > -5; 20a > 0; a>0



10) $-2(b+1)+4<10$

-2b - 2 +4 < 10; -2b + 3 < 10

-2b < 10 -2; -2b < 8; b > -8/2; b>-4



Part 2

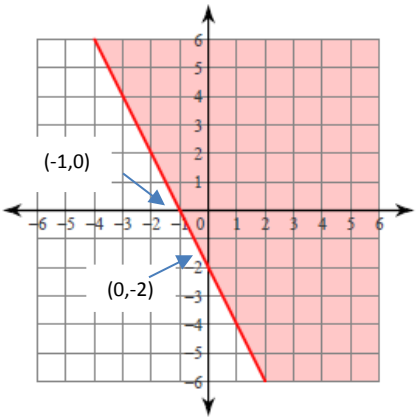
Sketch the graph of each linear inequality.

1) $y \geq -2x - 2$

y≥ -2x -2

y = -2x -2

x	0	-1
y	-2	0

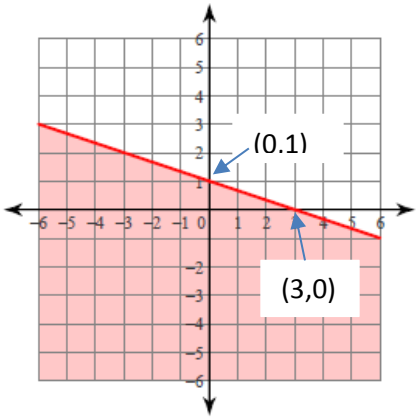


2) $y \leq -\frac{1}{3}x + 1$

Y ≤ -(1/3)x + 1

Y = -(1/3)x + 1

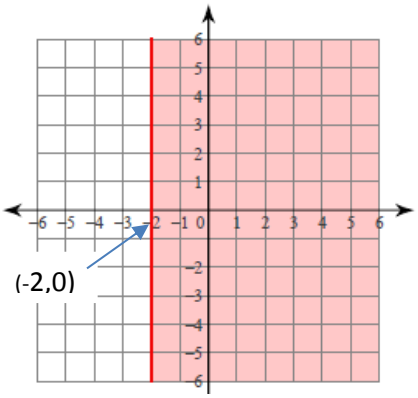
x	0	3
y	1	0



3) $x \geq -2$

X ≥ -2

X = -2

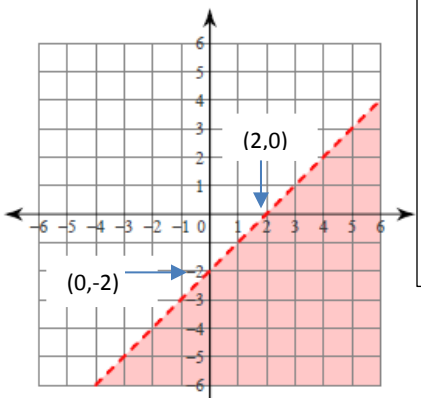


4) $y < x - 2$

Y < x - 2

Y = x - 2

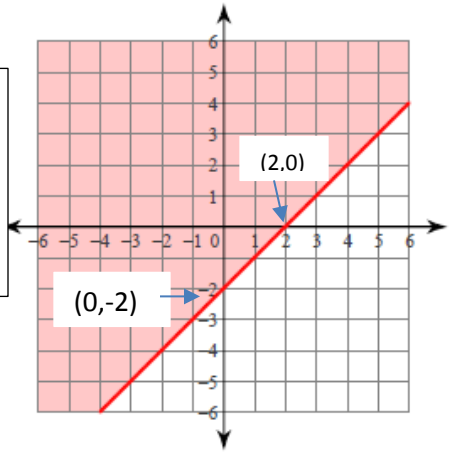
x	0	2
y	-2	0



5) $y \geq x - 2$

Y= x - 2

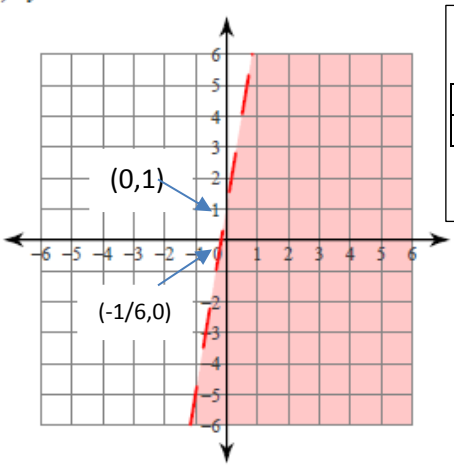
x	0	2
y	-2	0



6) $y < 6x + 1$

Y = 6x +1

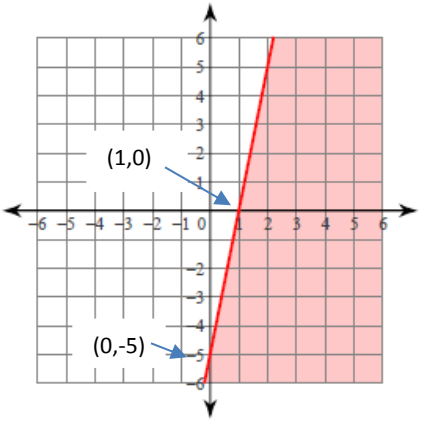
x	0	-1/6
y	1	0



7) $5x - y \geq 5$

5x = 5 + y

x	0	1
y	-5	0

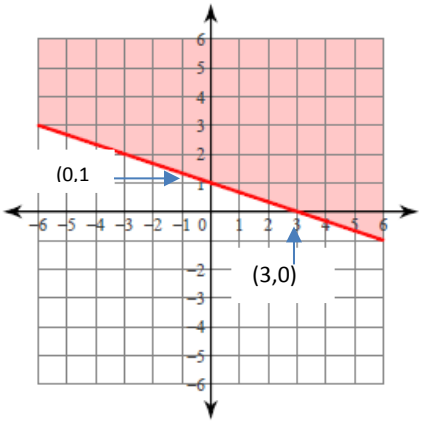


8) $x + 3y \geq 3$

X + 3y ≥ 3

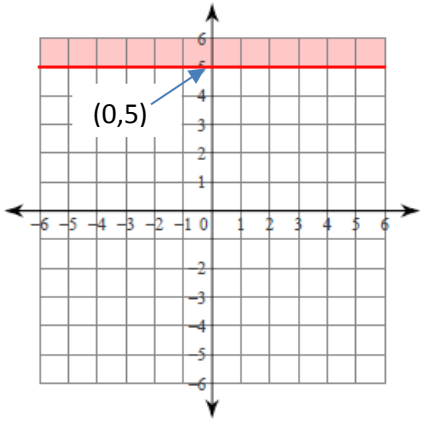
X+3y = 3

x	0	3
y	1	0



9) $y \geq 5$

Y = 5



10) $2x - 5y \leq 10$

2x - 5y = 10

x	0	5
y	-2	0