

Review Exercise 8

Q.1 Choose the correct answer

- (i) If $(x-1, y+1) = (0, 0)$, Then (x, y) is
 (a) $(1, -1)$ (b) $(-1, 1)$
 (c) $(1, 1)$ (d) $(-1, -1)$
- (ii) If $(x, 0) = (0, y)$ Then (x, y) is
 (a) $(0, 1)$ (b) $(1, 0)$
 (c) $(0, 0)$ (d) $(1, 1)$
- (iii) Point $(2, -3)$ lies in quadrant
 (a) I (b) II
 (c) III (d) IV
- (iv) Point $(-3, -3)$ lies in quadrant
 (a) I (b) II
 (c) III (d) IV
- (v) If $y = 2x + 1, x = 2$ Then y is
 (a) 2 (b) 3
 (c) 4 (d) 5
- (vi) Which order pair satisfy the equation $y = 2x$
 (a) $(1, 2)$ (b) $(2, 1)$
 (c) $(2, 2)$ (d) $(0, 1)$

ANSWER KEYS

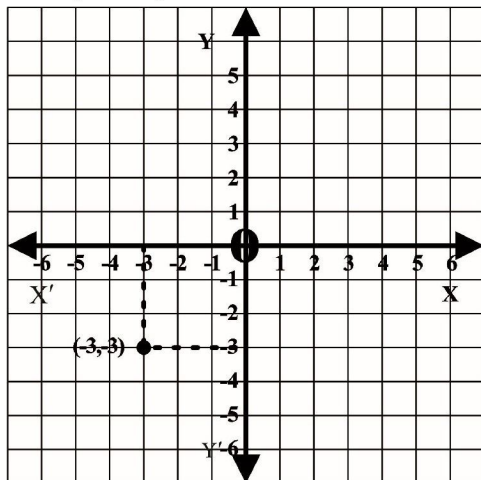
1	2	3	4	5	6
a	c	d	c	d	a

Q.2 Identify the following statement as true or false

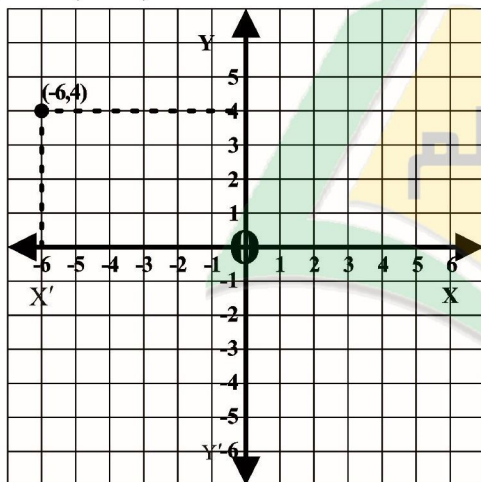
- | | |
|---|-------|
| 1. The point O(0,0) is in quadrant II | False |
| 2. The point p (2,0) lies on x-axis | True |
| 3. The graph of $x=-2$ is a vertical line | True |
| 4. $3-y=0$ is a horizontal line | True |
| 5. The point Q (-1,2) is in quadrant II | True |
| 6. The point R (-1,-2) is in quadrant IV | False |
| 7. $y = x$ is a line on which origin lies | True |
| 8. The point p (1,1) lies on the line $x + y = 0$ | False |
| 9. The point S (1,-3) lies in quadrant III | False |
| 10. The point R (0,1) lie on the x-axis | False |

Q.3 Draw the following points on the graph paper

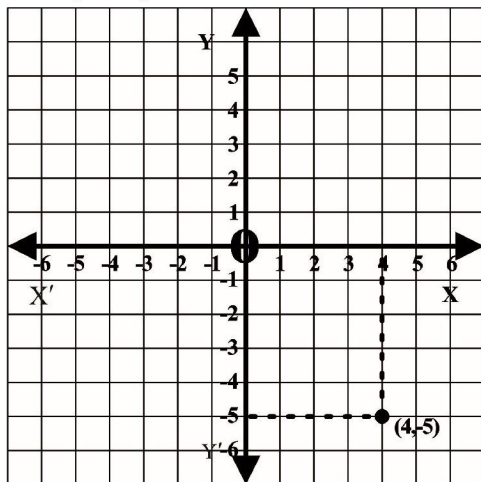
(i) $(-3, -3) \Rightarrow$



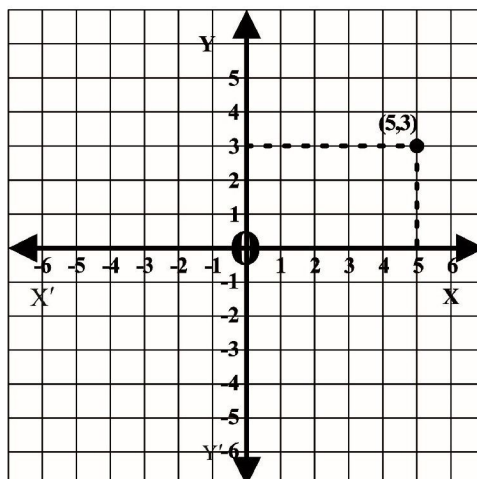
(ii) $(-6, 4) \Rightarrow$



(iii) $(4, -5) \Rightarrow$



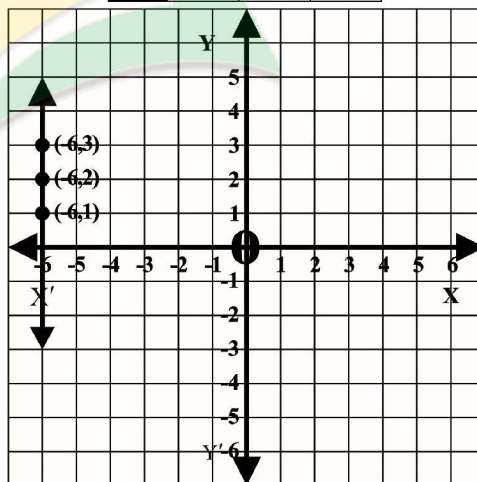
(iv) $(5, 3)$



Q.4 Draw the graph of the following

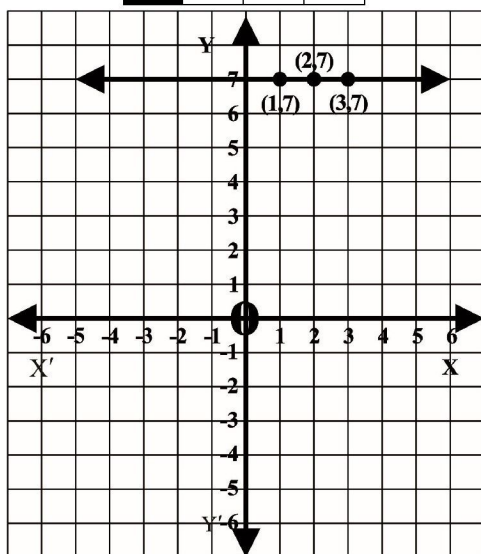
(i) $x = -6$

x	-6	-6	-6
y	1	2	3



(ii) $y = 7$

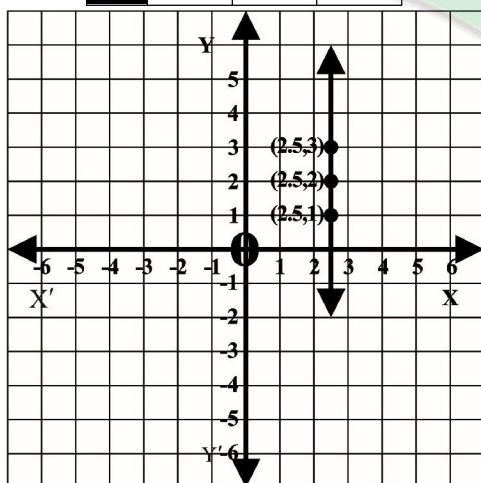
x	1	2	3
y	7	7	7



(iii) $x = \frac{5}{2}$

$x = 2.5$

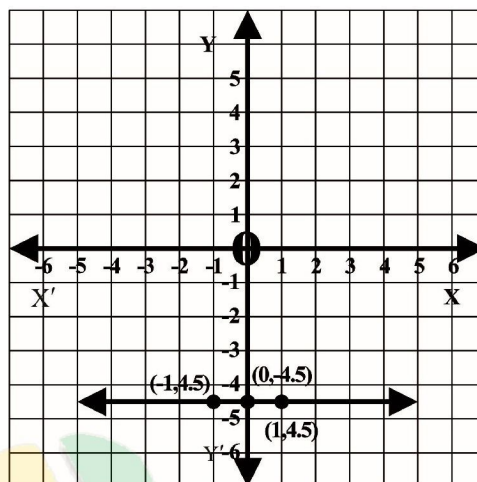
x	2.5	2.5	2.5
y	1	2	3



(iv) $y = -\frac{9}{2}$

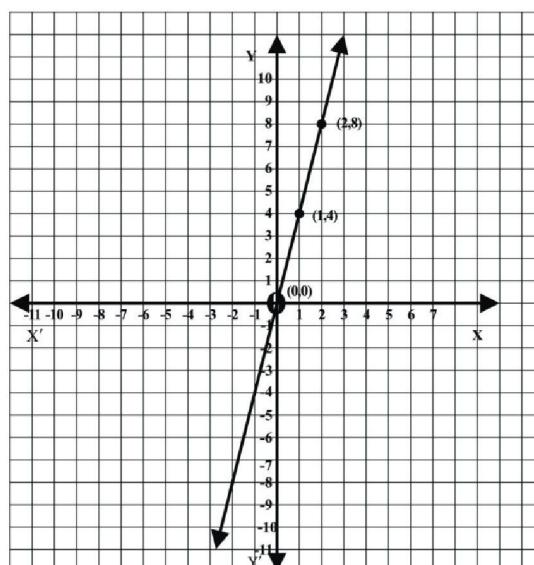
$y = -4.5$

x	-1	0	1
y	-4.5	-4.5	-4.5



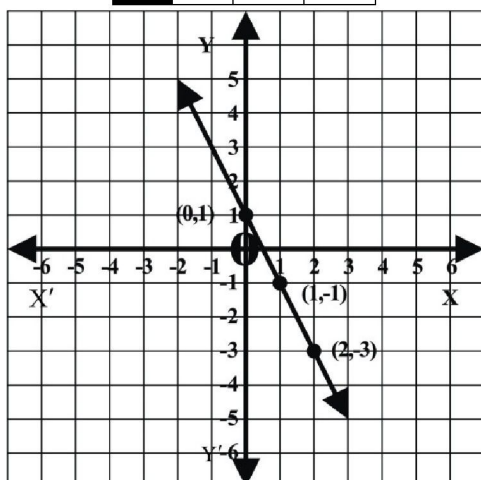
(v) $y = 4x$

x	0	1	2
y = 4x	4 × 0 = 0	4 × 1 = 4	4 × 2 = 8



(vi) $y = -2x + 1$

x	0	1	2
y	1	-1	-3



Q.5 Draw the following graph

(i) $y = 0.62x$

x	$y = 0.62x$
1	$0.62 \times 1 = 0.62$
2	$0.62 \times 2 = 1.24$
3	$0.62 \times 3 = 1.86$

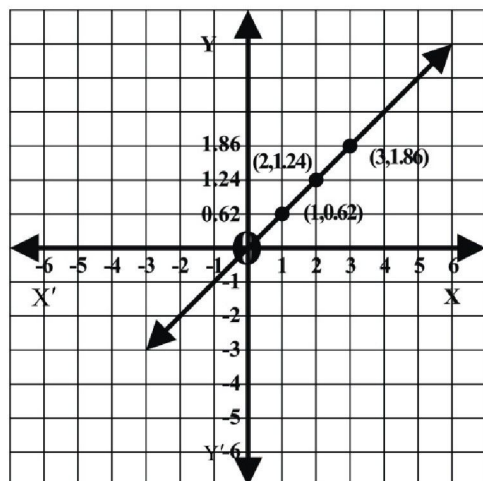
Scale

Along x -axis

1 Big Square = 1 Unit

Along y -axis

1 Big Square = 0.62 Units



(ii) $y = 2.5x$

x	$y = 2.5x$
1	$2.5(1) = 2.5$
2	$2.5(2) = 5.0$
3	$2.5(3) = 7.5$

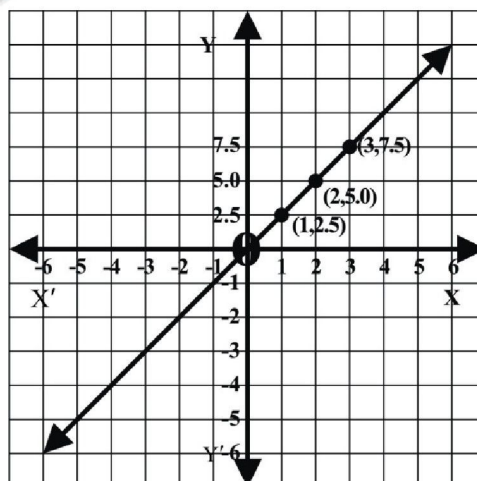
Scale

Along x -axis

1 Big Square = 1 Unit

Along y -axis

1 Big Square = 2.5 Units



Q.6

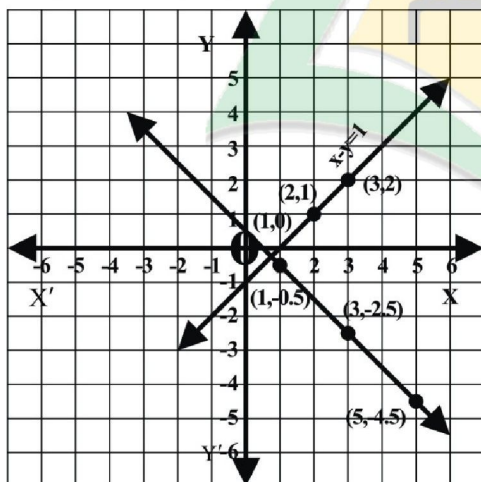
(i) $x - y = 1$ $x + y = \frac{1}{2}$

$x - 1 = y$ $y = \frac{1}{2} - x$

or $y = x - 1$ $y = \frac{1 - 2x}{2}$

x	y = x - 1
1	1 - 1 = 0
2	2 - 1 = 1
3	3 - 1 = 2

x	y = $\frac{1 - x}{2}$
1	$\frac{1 - 1}{2} = -\frac{1}{2}$
3	$\frac{1 - 6}{2} = -\frac{5}{2}$
5	$\frac{1 - 10}{2} = -\frac{9}{2}$



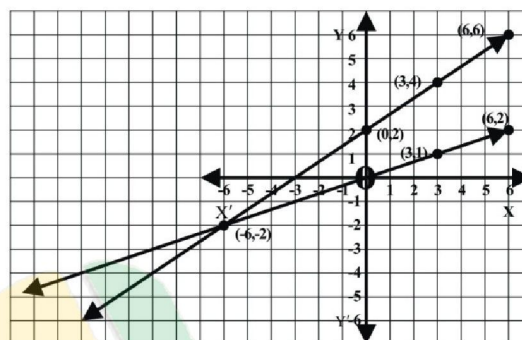
Point of intersection is a solution set

Solution Set = $\left\{\left(\frac{3}{4}, -\frac{1}{4}\right)\right\}$

(ii) $x = 3y$

$y = \frac{1}{3}x$

x	y = $\frac{1}{3}x$
3	$\frac{1}{3} \times 3 = 1$
6	$\frac{1}{3} \times 6 = 2$



$2x - 3y = -6$

$2x + 6 = 3y$

$\frac{2x + 6}{3} = y$

$y = \frac{2x + 6}{3}$

Point of intersection is a solution set

Solution Set = $\{(-6, -2)\}$

x	y = $\frac{2x + 6}{3}$
0	$\frac{2(0) + 6}{3} = \frac{6}{3} = 2$
3	$\frac{2(3) + 6}{3} = \frac{12}{3} = 4$
6	$\frac{2(6) + 6}{3} = \frac{18}{3} = 6$

(iii) $\frac{1}{3}(x+y) = 2$ $\frac{1}{2}(x-y) = -1$

$x+y=6$ $x-y=-2$

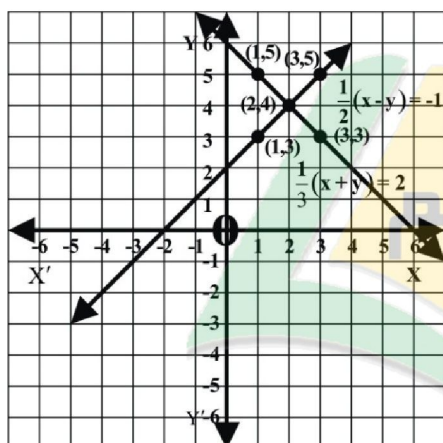
$y=6-x$ $x+2=y$

x	y=6-x
1	6-1=5
2	6-2=4
3	6-3=3

x	y=x+2
1	1+2=3
2	2+2=4
3	3+2=5

Point of intersection is a solution set

Solution Set = $\{(2,4)\}$



Last Updated: September 2020

Report any mistake at freeilm786@gmail.com