1 C
2 A
3 D
4 A
5 D
6 B
7 D
8 B
9 D
10 A
11 A
12 C
13 B
14 A
15 B
16
17
18

16

$3x - y = 4$ —(i)

$2x - 3y = -9$ —(ii)

Substitution

In eqn (i)

$3x - y = 4$

$3x - 4 = y$

$y = 3x - 4$ —(iii)

Substitute (iii) in eqn (ii)

$2x - 3y = -9$

$2x - 3(3x - 4) = -9$

$2x - 9x + 12 = -9$

$\frac{-7x}{-7} = \frac{-21}{-7}$

$x = 3$

$x = 3$

(iii)

$y = 3x - 4$

$y = (3 \times 4) - 4$

$y = 12 - 4$

$y = 8 \quad x = 3$

17)

18

$2(3x - 6y = -3)$

$3(2x + 4y = 30)$

$6x - 12y = -6$

$-\ 6x + 12y = 90$

$0 - 24y = -84$

$\frac{-24y}{12} = \frac{-84}{12}$

$\frac{-2y}{-} = \frac{+7}{12}$

$y = 7/2$

$3x - 6y = -3$

$3x - 6(7/2) = -3$

$3x - 21 = -3$

$3x = 18$

$x = 6.$

$x = 6 \quad y = 7/2$

19.

20 Elimination

$3x + 4y = 19$

$-\ 3x + 6y = 33$

$3x + 4y = 19$

$-\ 3x + 6y = 33$

$0 - 2y = -14.$

$\frac{-7y}{-} = \frac{-14}{7^2}$

$y = 7$

$3x + 4y = 19$

$3x + (4 \times 7) = 19$

$3x = 19 - 28$

$3x = -9$

$x = -3.$

$x = -3$

$y = 7$

B

$3x + 2y = 19$
$-3x - 5y = 25$

A

$3x + 2y = 19$
$-3x - 5y = 25$
$0 - 3y = -6$

$-3y = -6$
$y = 2.$

$3x + 2y = 19$
$3x + 4 = 19.$
$3x = 19 - 4$
$3x = 15$
$x = 5$

$y = 2 \quad x = 5$

ii) A.

$y \leq x + 2.$

$y \geq x - 3$

B.

$y < x.$

$y > -x.$

C

22. (A)

$-11x - 10y = 17$
$5x - 7y = 50$

Elimination method.

$5(-11x - 10y = 17$
$11(5x - 7y = 5$

$-55x - 50y = 85$
$55x - 77y = 55$ +
$0 \quad -127y = 140$

$-127y = 140$

$y = \frac{140}{127}$

$5x - 7y = 5$
$5x - 7\left(\frac{140}{127}\right) = 5$

$5x - \frac{980}{127} = 5$

$5x - 7.717 = 5$
$5x = 12.717$
$\frac{5x}{5} = \frac{12.717}{5}$

$x = 6.5434$

$y = 1.102$

22 B

$3x - 5y = 7$
$2x + 3y = 13$

Elimination method

$2(3x - 5y = 7)$
$3(2x + 5y = 13)$

$6x - 10y = 14$
$6x -$

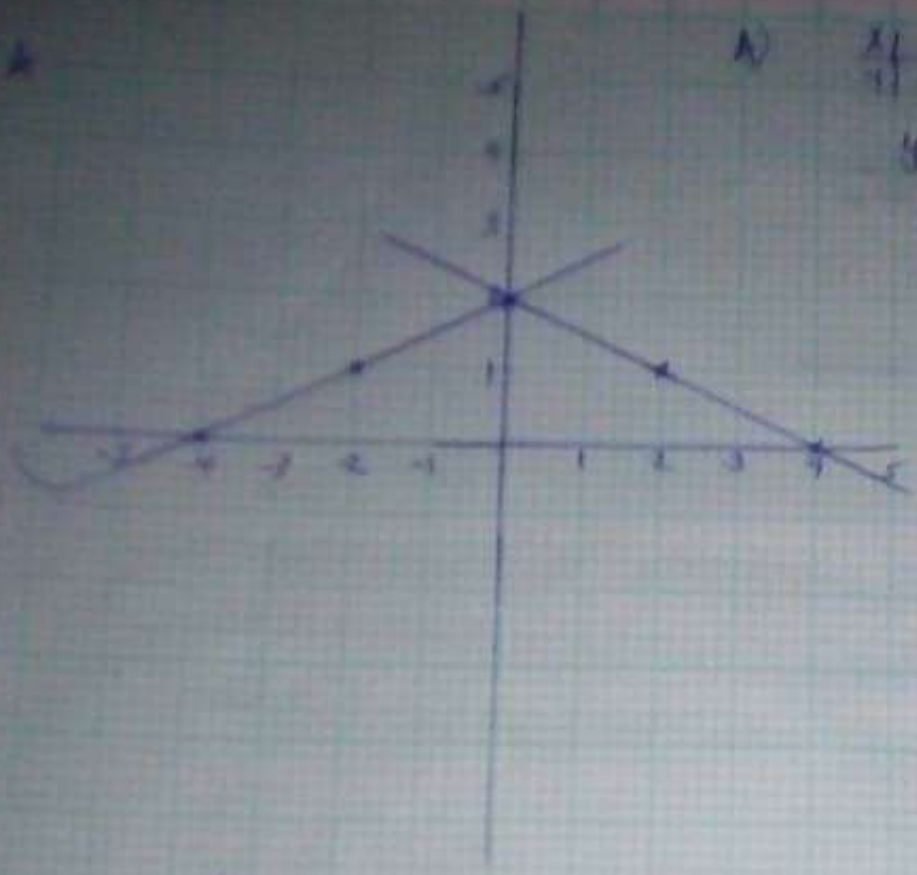
$3x - 5y = 7$ +
$2x + 5y = 13$
$5x \quad 0 = 20$

$5x = 20$
$x = 4$

$3x - 5y = 7$
$12 - 5y = 7$
$-5y = 7 - 12$
$-5y = -5$
$y = 1$

$x = 4 \quad y = 1$

17 A



A) $x + 2y = 4$

x	4	2	0
y	0	1	2

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

x	-4	-2	0
y	0	1	2

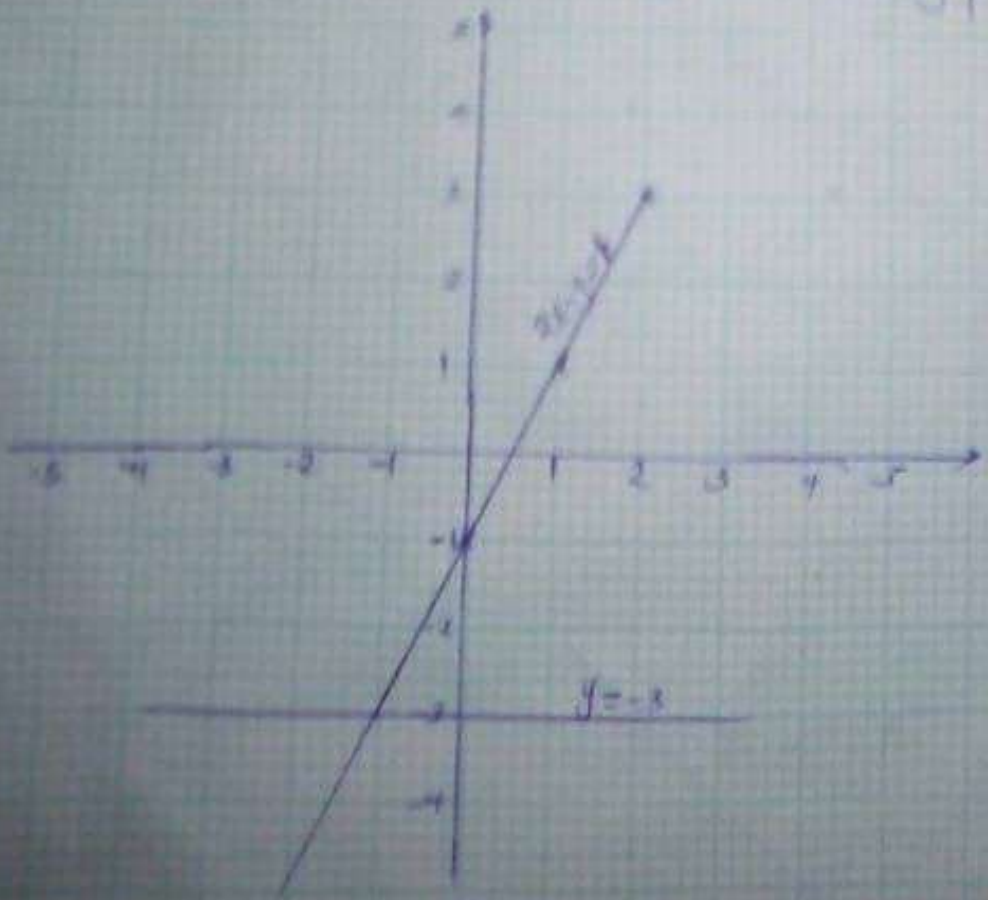
$y = 2 \quad x = 0$

B $2x - y = 1$

$y = -3$

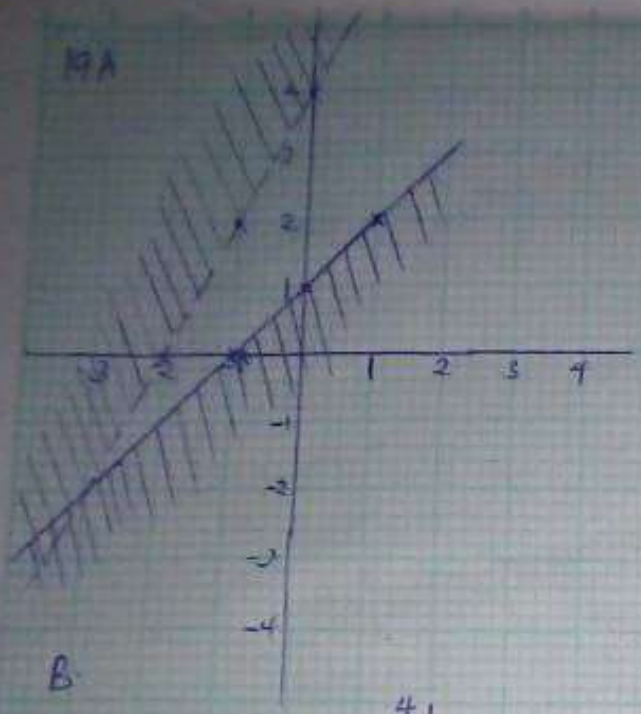
$2x - y = 1$

x	0	1	2
y	-1	1	3

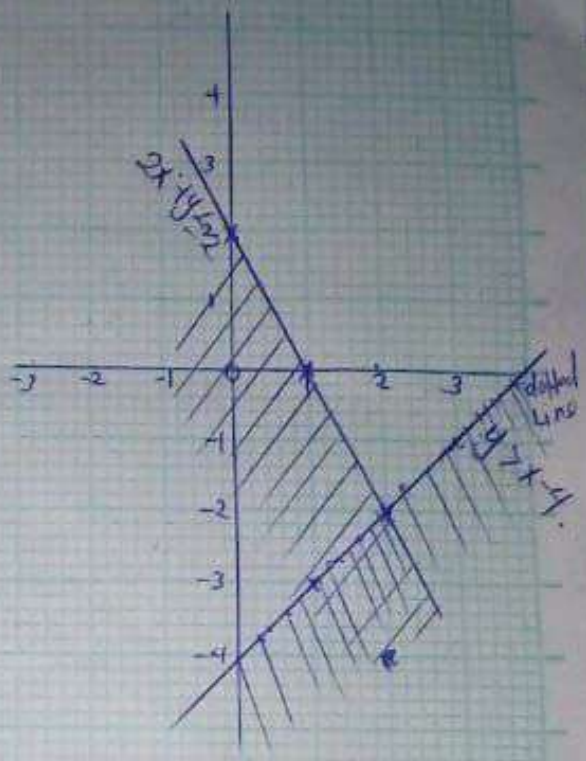


(i) $y = -3 \quad x = -1$

(ii)



(C)



B.