9-CBSE
PT-3M

16th July '18

Solution

Section: A

1) Concurrent

2) Unique

3) $\angle A = 180^\circ - (76^\circ + 48^\circ)$

$= 180^\circ - 124^\circ$

$\angle A = 56^\circ$

4) $x + (x + 25^\circ) = 180^\circ$

$2x = 180^\circ - 25^\circ$

$x = \frac{155^\circ}{2}$

$x = 77^\circ 30'$

→ ∴ The angle is $77^\circ 30'$.

5) $2(3) - 3(-2) = K$

$\therefore \quad K = 6 + 6$

$\therefore \boxed{K = 12}$

6) $5x + 8y = 50$

$5x + 8(10) = 50$

$5x + 80 = 50$

$5x = 50 - 80$

$5x = -30$

$\therefore \boxed{x = -6}$

Section: B

7) $3x + 20^\circ + 4x - 36^\circ = 180^\circ$

$7x - 16^\circ = 180^\circ$

$7x = 196^\circ$

$x = \frac{196^\circ}{7}$

$\therefore \boxed{x = 28^\circ}$

∵ If these two angles are linear pair of angles then only $\overleftrightarrow{AB}$ is a line.

8) Lets assume the required angle is x.

$\therefore 6(90^\circ - x) = 2(180^\circ - x) - 12^\circ$

$540^\circ - 6x = 360^\circ - 2x - 12^\circ$

$4x = 540^\circ - 360^\circ + 12^\circ$

$4x = 192^\circ$

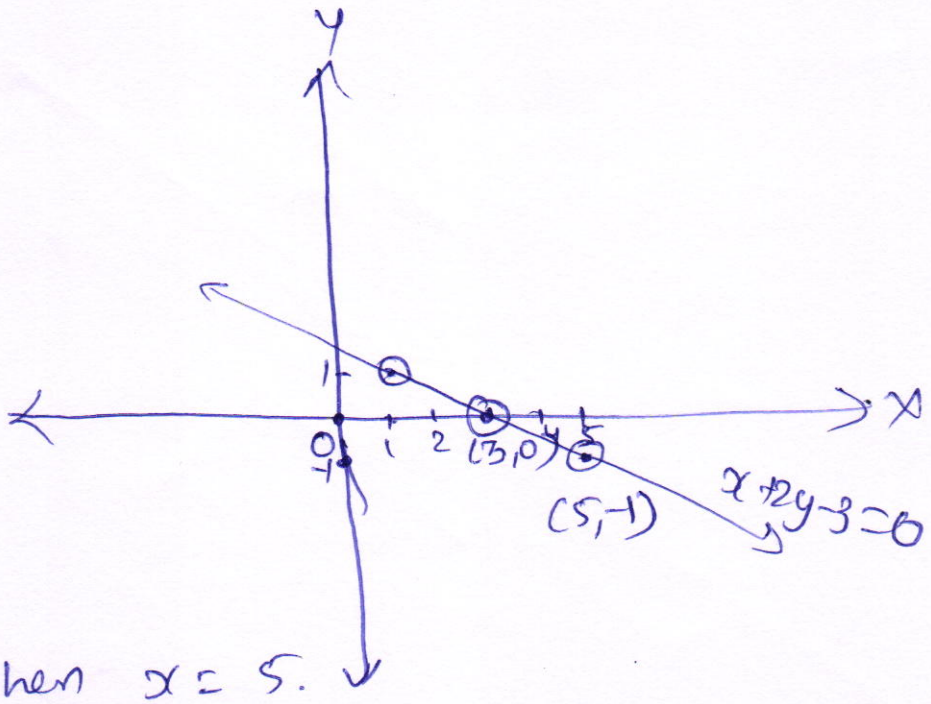
$\therefore \boxed{x = 48^\circ}$

Section: C

9) $x + 2y - 3 = 0$

$x = 3 - 2y$

y	0	1
x	3	1



$\therefore y = -1$ when $x = 5$.

(10) → $75^\circ = y^\circ$ ∵ Alternate Interior angles

$\therefore \boxed{y = 75^\circ}$

→ $x + y = 180^\circ$ ∵ Supplementary angles

$x = 180^\circ - 75^\circ$

$\boxed{x = 105^\circ}$

→ As y & z are the opposite interior angles of 125°.

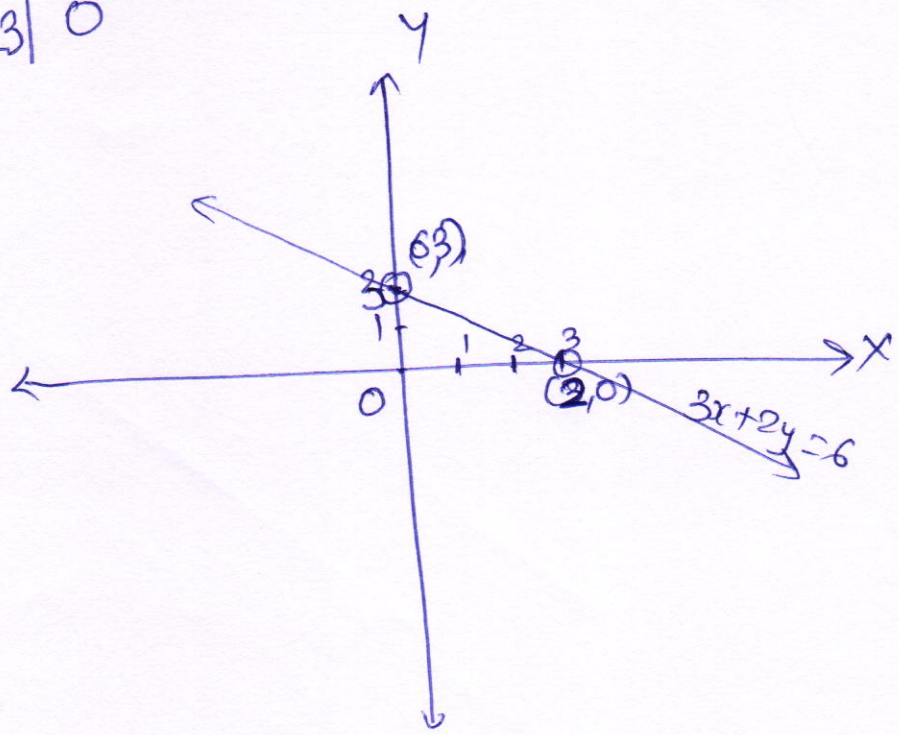
$\therefore y + z = 125^\circ$

$\therefore z = 125^\circ - 75^\circ$

$\boxed{z = 50^\circ}$

(11) $3x + 2y = 6$

x	0	2
$y = \frac{6-2y}{3}$	3	0



At point (0, 3) the graph cuts y-axis.