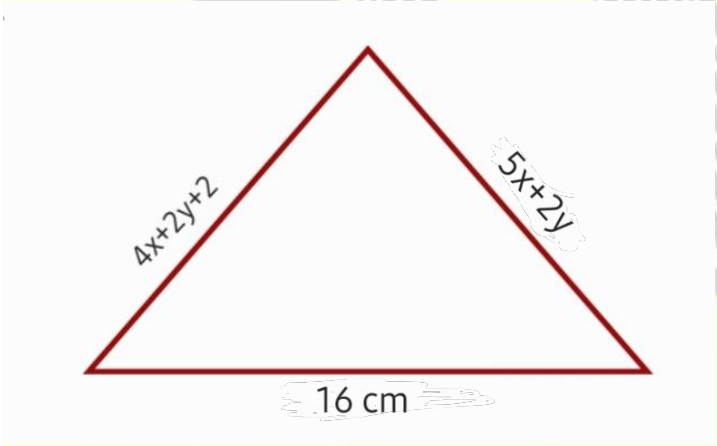
Q.1 Solve the following simultaneous equation –

$7x - 5y = 50$

$3x + 2y = 9$ (3)

Q.2



An equilateral triangle is given above. Find the value of x and y

(4)

_____

_____

_____

_____

_____

_____

_____

_____.

Q.3 Two straight lines with following equations –

$px + 3y = 5$ and

$4x – 4y = 12$

meet at a point. The x coordinate of the intersecting point is 4, then find the value of p. (2)

_____

_____

_____

_____

_____

_____

_____.

Q.4 Solve these simultaneous equations algebrically –

$y = 4x^2 - 7x + 3$

$2x - 2y = -6$ (4)

Q.5 First 3 terms of an arithmetic series is given as

$2x + 3y$ $4x + 4y$ $6y + 4x$

The common difference of this series is 4.

Then find all 3 terms of this series. (5)

_____

_____

_____

_____.

Q.6 In a class there are certain number of boys and certain number of girls.

If 2 girls are added to the class total number of students will be 2 times the number of boys.

And if 18 boys are added to the original class, then total number of student will become 3 times the original number of girls (4)

_____

_____

_____

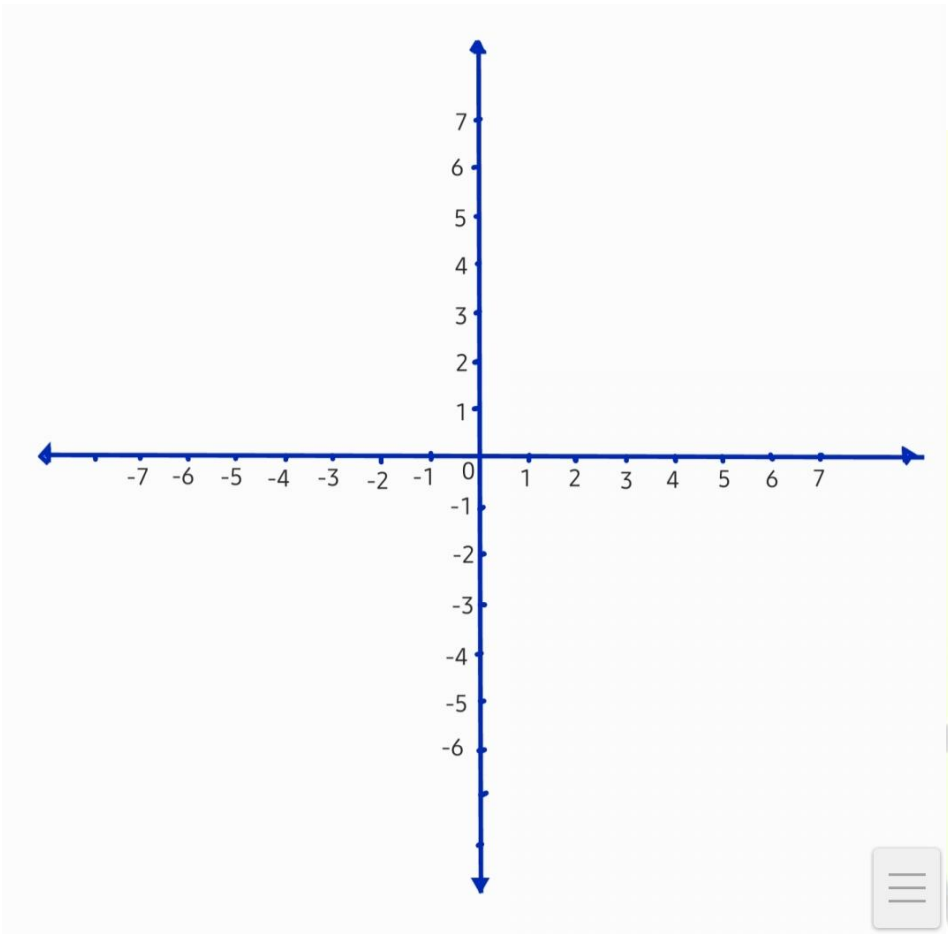
_____

_____

_____

_____.

Q.7



Solve the following simultaneous equations graphically.

$2x + 3y = 10$

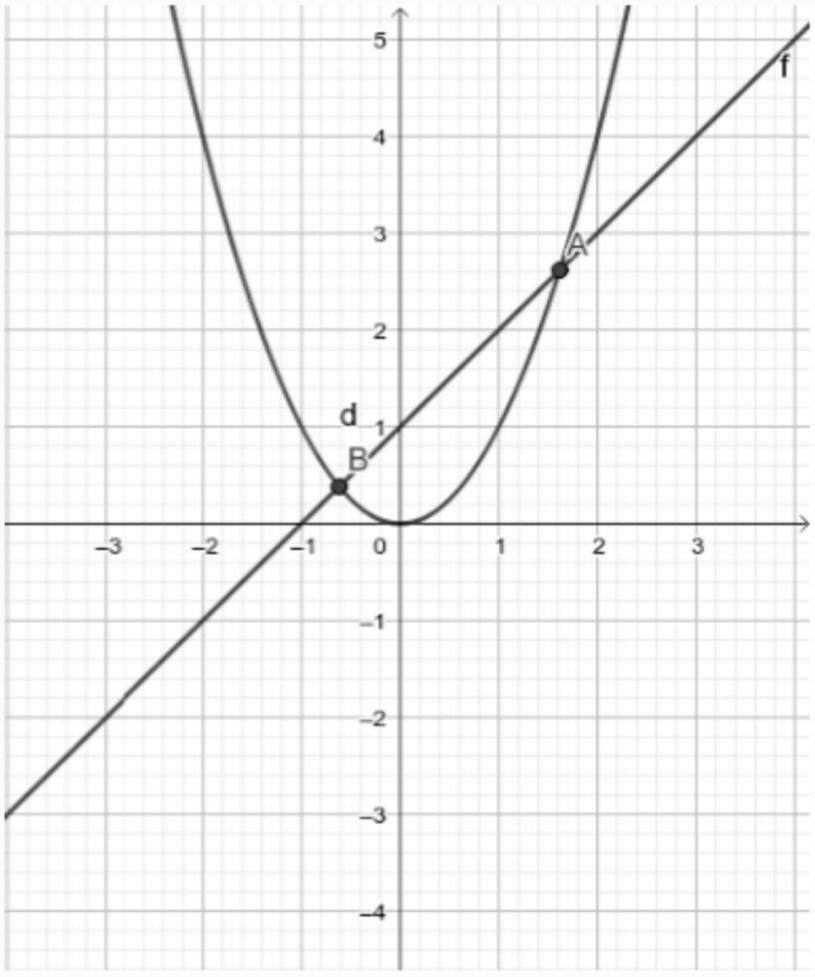
$3x + 2y = 5$ (5)

_____

_____

_____.

Q.8 Find the estimated solutions of the graph – (2)



Q.9 A parabola with equation $y = 7x^2 + 3x – 2$ is intersected by a straight line $y = 17x – 9$. Prove that this straight line is tangent the this curve. (5)

Q.10 A man covers a distance of 20 km in x – y hour with a speed of x + y km/hr.

Then covers a distance of 95 km in 2x – y hour with a speed of 2x + y km/hr.

Then find the value of x and y. (5)