MATHS

BOOKS - PREMIERS PUBLISHERS

CO-ORDINATE GEOMETRY

Exercise 5 1

1. Find the area of the triangle formed by the points.

$(1, \; -1), (\; -4, 6), (\; -3, \; -5)$

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2. Find the area of the triangle formed by the points.

$(- 10, \ - 4), (- 8, \ - 1)$ and $(- 3, \ - 5)$

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3. Determine whether the sets of points at collinear?

$\left(\dfrac{-1}{2}, 3 \right), (- 5, 6)$ and $(- 8, 8)$

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4. Determine whether the sets of points at collinear?

$(a, b + c), (b, c + a)$ and $(c, a + b)$

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5. Vertices of given triangles are taken in order and their areas are provided aside. In each case, find the value of 'p'.

S.No.	Vertices	Area(sq. units)
(i)	$(0,0),(p,8),(6,2)$	20
(ii)	$(p,p),(5,6),(5\text{-}2)$	32

6. In the each of the following, find the value of 'a' for which the given points are collinear.

$(2, 3), (4, a)$ and $(6, \ -3)$

7. In the each of the following, find the value of 'a' for which the given points are collinear.

$(a, 2 - 2a), (-a + 1, 2a)$ and $(-4 - a, 6 - 2a)$

8. Find the area of the quadrilateral whose vertices are at

$(-9, -2), (-8, -4), (2, 2)$ and $(1, -3)$

9. Find the area of the quadrilateral whose vertices are at

$(-9, 0), (-8, 6), (-1, -2)$ and $(-6, -3)$

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10. Find the value of k, if the area of a quadrilateral is

28 sq.units, whose vertices are

$(-4, -2), (-3, k), (3, -2)$ and $(2, 3)$

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**11.** If the points $A(-3, 9)$, $B(a, b)$ and $C(4, -5)$ are collinear and if $a + b = 1$, find the a and b.

12. Let P(11, 7), Q(13.9, 4) an dR(9.5, 4) be the mid points of the sides AB, BC and AC respectively of $\triangle ABC$. Find the coordinates of the vertices A, B, and C. Hence find the area of $\triangle ABC$ and compare this with area of $\triangle PQR$.

13. In the figure, the quadrilateral swimming pool shown is surrounded by concrete patio. Find the area of the patio.

D(-10, 6)   C(6, 10)
H(-6, 4)   G(6, 7)
E(-3, -5)   F(0, -2)
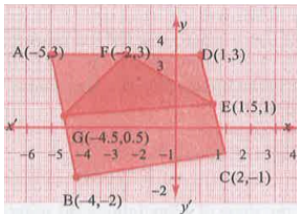A(-4, -8)   B(8, -4)
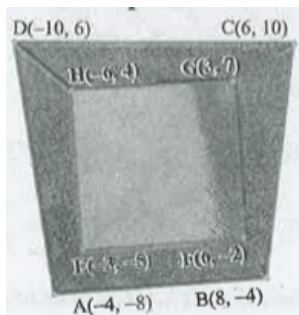
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14. A triangle shaped glass with vertices at $A(-5, -4), B(1, 6)$ and $C(7, -4)$ has to be painted. If one bucket of paint covers 6 square feet,

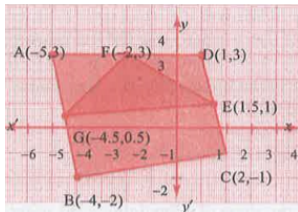how many buckets of paint will be required paint is applied.
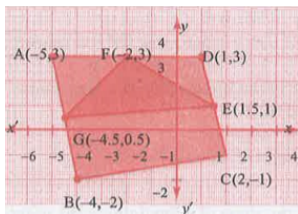
15. In the figure, find area of

triangle AGF

16. In the figure, find area of

triangle FED

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17. In the figure, find the area of

quadrilateral BCEG.

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1. What is the slope of a line whose inclination with positive direction of x-axis is

$90°$

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2. What is the slope of a line whose inclination with positive direction of x-axis is

$90°$

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3. What is the inclination of a line whose slope is

0

4. What is the inclination of a line whose slope is

1

5. Find the slope of a line joining the points

$(5, \sqrt{5})$ with origin

6. Find the slope of a line joining the points $(\sin\theta, \ -\cos\theta)$ and $(-\sin\theta, \cos\theta)$ with the origin

7. What is the slope of a line perpendicular to the line joining $A(5, 1)$ and P where P is the mid-point of the segment joining (4, 2)) and (-6, 4).

8. Show that the given points are collinear:

$(-3, -4), (7, 2)$ and $(12, 5)$

9. If the three points $(3, -1), (a, 3), (1, -3)$ are collinear, find the value of a.

10. The line through the points $(-2, a)$ and $(9, 3)$ has slope $\dfrac{-1}{2}$. Find the value of a.

11. The line thorugh the point $(-2, 6)$ and $(4, 8)$ perpendicular to the line through the points $(8, 12)$ and $(x, 24)$. Find the value of x.

12. Show that the given points form a right angled triangle and check whether they satisfies pythagoras theorem.

$A(1, -4), B(2, -3)$ and $C(4, -7)$

13. Show that the given points form a right angled triangle and check whether they satisfies pythagoras theorem.

$L(0, 5)$, $M(9, 12)$ and $N(3, 14)$

14. Show that the given points form a parallelogram:

$A(2.5, 3.5)$, $B(10, \ -4)$, $C(2.5, \ -2.5)$ and $D(\ -5, 5)$

.

15. If the points

$A(2, 2), B(- 2, - 3), C(1, - 3)$ and $D(x, y)$

form a parallelogram then find the value of x and y.

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16. Let

$A(3, - 4), B(9, - 4), C(5, - 7)$ and $D(7, - 7).$

Show that ABCD is a trapezium.

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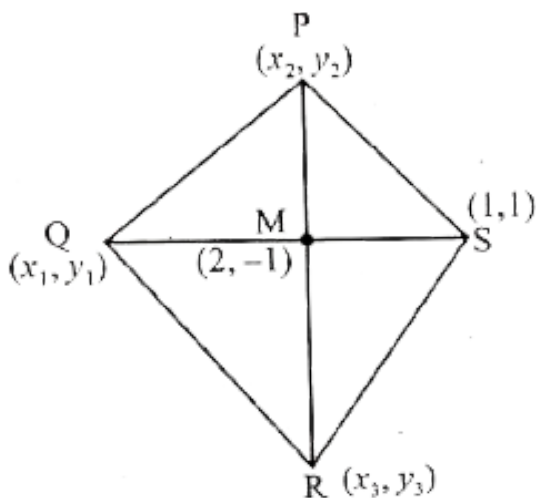**17.** A quadrilateral has vertices at $A(-4, -2), B(5, -1), C(6, 5)$ and $D(-7, 6)$. Show that the mid-point of its sides form a parallelogram.

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18. PQRS is a rhombus . Its diagonals PR and QS intersect at the point M and satisfy QS=2PR. If the coordinates of S and M are (1,1) and (2,-1) respectively

, find the coordinates of P .

The figure shows a rhombus PQRS with diagonals intersecting at M. Vertices are labeled P (x_2, y_2) at top, Q (x_1, y_1) at left, S $(1,1)$ at right, R (x_3, y_3) at bottom, and M $(2, -1)$ at the center.

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Exercise 5 3

1. Find the equation of a straight line passing through the mid-point of a line segment joining the

points $(1, -5), (4, 2)$ and parallel to

X axis

2. Find the equation of a straight line passing through the mid-point of a line segment joining the points $(1, -5), (4, 2)$ and parallel to

Y axis

3. The equation of a straight line is $2(x - y) + 5 = 0$. Find its slope, inclination and intercept on the Y axis.

4. Find the equation of a line whose inclination is $30°$ and making intercept -3 on the y axis.

5. Find the slope and y intercept of

$$\sqrt{3}x + (1 - \sqrt{3})y = 3$$

6. Find the value of 'a', if the line through $(-2, 3)$ and $(8, 5)$ is perpendicular to $y = ax + 2$.

7. The hill in the form of a right triangle has its foot at (19, 2). The inclination of the hill to the ground is $45°$. Find the equation of the hill joining the foot and top.

8. Find the equation of a line through the given pair of points $(x_1, y_1), (x_2, y_2)$

$\left(2, \dfrac{2}{3}\right)$ and $\left(\dfrac{-1}{2}, -2\right)$

9. Find the equation of a line through the given pair of points $(x_1, y_1), (x_2, y_2)$

$(2, 3)$ and $(-7, -1)$

10. A cat is located at the point $(-6, -4)$ in xy plane. A bottle of milk is kept at (5,11).The cat wishes to consume the milk travelling through shortest possible distance. Find the equation of the path it needs to take its milk.

11. Find the equation of the median and altitude of $\triangle ABC$ through A where the vertices are $A(6, 2), B(-5, -1)$ and $C(1, 9)$.

12. Find the equation of a straight line which has slope $\dfrac{-5}{4}$ and passing through the point $(-1, 2)$.

13. You are downloading a song. The percent y (in decimal form) of mega bytes remaining to get downloaded in x seconds is given by $y = 0.1x + 1$. find the total MB of the song.

14. You are downloading a song. The percent y (in decimal form) of mega bytes remaining to get downloaded in x seconds is given by $y = 0.1x + 1$. find the total MB of the song.

15. You are downloading a song. The percent y (in decimal form) of mega bytes remaining to get downloaded in x seconds is given by $y = 0.1x + 1$. after how many seconds will 75% of the song gets downloaded?

16. You are downloading a song. The percent y (in decimal form) of mega bytes remaining to get downloaded in x seconds is given by $y = 0.1x + 1$. after how many seconds the song will be downloaded completely?

17. Find the equation of the line whose intercepts on the x and y axes are given below.

4, -6

18. Find the equation of the line whose intercepts on the x and y axes are given below.

-5, (3)/(4)

19. Find the intercept made by the following lines on the coordinate axes.

3x-2y-6=0`

20. Find the intercept made by the following lines on the coordinate axes.

$$4x + 3y + 12 = 0$$

21. Find the equation of a straight line

Passing through (1, -4) and has intercepts which are in the ratio 2:5

22. Find the equation of a straight line

Passing through (-8, 4) and making equal intercepts on the coordinate axes.

Exercise 5 4

1. Find the slope of the following straight lines

$$5y - 3 = 0$$

2. Find the slope of the following straight lines

$$7x - \frac{3}{17} = 0$$

3. Find the slope of line which is

parallel to $y = 0.7x - 11$

4. Find the slope of line which is

perpendicular to the line $x = -11$

5. Check whether the given lines are parallel or perpendicular

$$\frac{x}{3} + \frac{y}{4} + \frac{1}{7} = 0 \text{ and } \frac{2x}{3} + \frac{y}{2} + \frac{1}{10} = 0$$

6. Check whether the given lines are parallel or perpendicular

$$5x + 23y + 14 = 0 \text{ and } 23x - 5y + 9 = 0$$

7. If the straight lines

$$12y = -(p+3)x + 12, \ 12x - 7y = 16$$ are

perpendicular then find 'p'.

8. Find the equation of a straight line passing through the point $P(-5, 2)$ and parallel to the line joining the points $Q(3, -2)$ and $R(-5, 4)$.

9. Find the equation of a line passing thorugh $(6, -2)$ and perpendicular to the line joining the point $(6, 7)$ and $(2, -3)$.

10. $A(-3, 0), B(10, -2)$ and $C(12, 3)$ are the vertices of $\triangle ABC$. Find the equation of the altitude through A and B.

11. Find the equation of the perpendicular bisector of the line joinging the point $A(-4, 2)$ and $B(6, -4)$.

12. Find the equation of a straight line through the intersection of lines $7x + 3y = 10, 5x - 4y = 1$ and parallel to the lines $13x + 5y + 12 = 0$.

13. Find the equation of a straight line through the intersection of lines $3x + 2y = 10$ and $5x - 6y = 2$ and perpendicular to the line $4x - 7y + 13 = 0$.

14. Find the equation of a straight line joining the point of intersection of $3x + y + 2 = 0$ and $x - 2y - 4 = 0$ to the point of intersection of $7x - 3y = -12$ and $2y = x + 3$.

15. Find the equation of a straight line through the point of intersection of the lines $8x + 3y = 18, 4x + 5y = 9$ and bisecting the line segment joining the points $(5, -4)$ and $(-7, 6)$.

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Exercise 5 5

1. The area of triangle formed by the points $(-5, 0), (0, -5)$ and $(5, 0)$ is

A. 0 sq.units

B. 25 sq.units

C. 5 sq.units

D. none of these

Answer: B

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2. A man walks near a wall, such that the distance between him and the wall is 10 units. Consider the wall to be the Y axix. The path travelled by the man is

A. x=10

B. y=10

C. x=0

D. y=0

Answer: A

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3. The straight line given by the equation $x = 11$ is

A. parallel to X axis

B. parallel to Y axis

C. passing through the origin

D. passing through the point (0,11)

Answer: B

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4. If $(5, 7)$, $(3, p)$ and $(6, 6)$ are collinear, then the value of p is

A. 3

B. 6

C. 9

D. 12

Answer: C

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5. The point of intersection of

$3x - y = 4$ and $x + y = 8$ is

    A. (5,3)

    B. (2,4)

    C. (3,5)

    D. (4,4)

Answer: C

6. The slope of the line joining $(12, 3), (4, a)$ is $\dfrac{1}{8}$.

The value of 'a' is

A. 1

B. 4

C. -5

D. 2

Answer: D

7. The slope of the line which is perpendicular to a line joining the points $(0, 0)$ and $(-8, 8)$ is

A. -1

B. 1

C. $\dfrac{1}{3}$

D. -8

Answer: B

8. If the slope of the line PQ is $\dfrac{1}{\sqrt{3}}$ then slope of the perpendicular bisector of PQ is

A. $\sqrt{3}$

B. $-\sqrt{3}$

C. $\dfrac{1}{\sqrt{3}}$

D. 0

Answer: B

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9. If A is a point on the Y-axis whose ordinate is 8 and B is a point on the X-axis whose abscissae is 5 then the equation of the line AB is ___.

A. 8x+5y=40

B. 8x-5y=40

C. x=8

D. y=5

Answer: A

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10. The equatin of a line passing through the origin and perpendicular to the line $7x - 3y + 4 = 0$ is

A. 7x-3y+4=0

B. 3x-7y+4=0

C. 3x+7y=0

D. 7x-3y=0

Answer: C

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11. Consider four straight lines

(i)$l_1 = 3y = 4x + 5$ (ii)$l_2 : 4y = 3x - 1$

(iii)$l_3 : 4y + 3y = 7$ (iv)$l_4 4x + 3y = 2$

    A. l_1 and l_2 are perpendicular

    B. l_1 and l_4 are not parallel

    C. l_2 and l_4 are not perpendicular

    D. l_2 and l_3 are not parallel

Answer: C

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12. A straight line has equation $8y = 4x + 21$. Which of the following is true

A. The slope is 0.5 and the y intercept is 2.6

B. The slope is 5 and the y intercept is 1.6

C. The slope is 0.5 and they y intercept is 1.6

D. The slope is 5 and the y intercept is 2.6

Answer: A

13. When proving that quadrilateral is a trapezium it is neccesary to show ____.

    A. Two lines are parallel .

    B. Two parallel and two non-parallel sides

    C. Opposite sides are parallel.

    D. All sides are of equal length .

Answer: B

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14. When proving that a quadrilateral is a parallelogram by using slopes you must find

    A. The slope of two sides

    B. The slopes of two pair of opposite sides

    C. The lengths of all sides

    D. Both the lengths and slopes of two sides

Answer: A

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15. $(2, 1)$ is the points of intersection of two lines

A. x-y-3=0, 3x-y-7=0

B. x+y=3 , 3x+y=7

C. 3x+y=3 , x+y=7

D. x+3y-3 =0 , x-y-7=0

Answer: B

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Unit Exericise

1. PQRS is a rectangle formed by joining the points $P(-1, -1), Q(-1, 4), R(5, 4)$ and $S(5, -1)$.

A, B, C and D are the mid points of PQ, QR, RS and SR respectively. Is the quadrilateral ABCD a square, a rectangle or a rhombus? Justify your answer.

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2. The area of a triangle is 5 units. Two of its certices are $(2, 1)$ and $(3, -2)$. The third vertex lies on y = x + 3. Find the co-ordinates of the third vertex of the triangle.

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3. Find the area of a triangle formed by lines $3x + y - 2 = 0, 5x + 2y - 3 = 0$ and $2x - y - 3 = 0$

4. If vertices of a quadrilateral are at $A(-5, 7), B(-4, k), C(-1, -6)$ and $D(4, 5)$ and its area is 72 sq. units. Find the value of k.

5. Without using distance formula, show that the points $(-2, -1), (4, 0), (3, 3)$ and $(-3, 2)$ is

vertices of a parallelogram.

6. Find the equations of the lines, whose sum and product of intercepts are 1 and -6 respectively.

7. The owner of a milk store finds that, he can sell 980 litres of milk each week at Rs 14/litre and 1220 litres of milk each week at Rs 16 / litre. Assuming a linear

relationship between selling price and demand, how many litres could he sell weekl

8. Find the image of the points $(3, 8)$ with respect to the line $x + 3y = 7$ assuming the line to be a plane mirror.

9. Find the equation of the line passing through the point of intersection of the lines $4x + 7y - 3 = 0$

and $2x - 3y + 1 = 0$ that has equal intercepts on the axes.

10. A person standing at the junction (crossing) of two straight paths represented by the equations $2x - 3y + 4 = 0$ and $3x + 4y - 5 = 0$ wants to reach the path whose equation is $6x - 7y + 8 = 0$ in the least time. Find equation of the path that he should follow.

1. How many triangles exist , whose area is zero ?

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2. If the area of a quadrilateral formed by the points (a,a) ,(-a,a),(a,-a) and (-a,-a), where $a \neq 0$ is 64 square units, then identify the type of the quadrilateral. Find all possible values of a.

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3. The straight lines X axis and Y axis are perpendicular to each other . Is the condition $m_1 m_2 = -1$ true ?

4. Provide three examples of using the concept of slope in real-life situations.

5. Is it possible to express, the equation of a straight line in slope-intercept form, when it is parallel to Y

axis ?

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6. How many straight lines do you have with slope 1 ?

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7. Find the number of point of intersection of two straight lines .

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8. Find the number of straight lines perpendicular to the line 2x-3y+6=0.

Progress Check

1. Complete the following table .

S.No	Points	Dis-tance	Mid Point	Internal Point	Ratio	External Point	Ratio
(i)	(3, 4), (5, 5)	---	---	---	2:3	---	2:3
(ii)	(−7, 13), (−3, 1)	---	---	$\left(-\frac{13}{3}, 5\right)$	---	(−13, 15)	---

2. A(0,5) , B(5,0) and C(-4,-7) are vertices of a triangle then its centroid will be at ......

3. The vertices of $\triangle PQR$ are P(0,-4),Q(3,1) and R(-8,1)
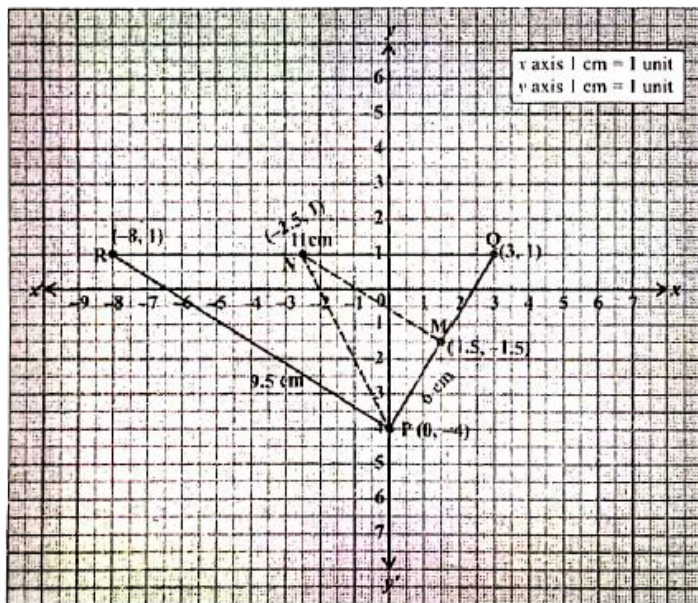
Draw $\triangle PQR$ on a graph paper .

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4. The vertices of $\triangle PQR$ are P(0,-4),Q(3,1) and

R(-8,1)

v axis 1 cm = 1 unit
y axis 1 cm = 1 unit
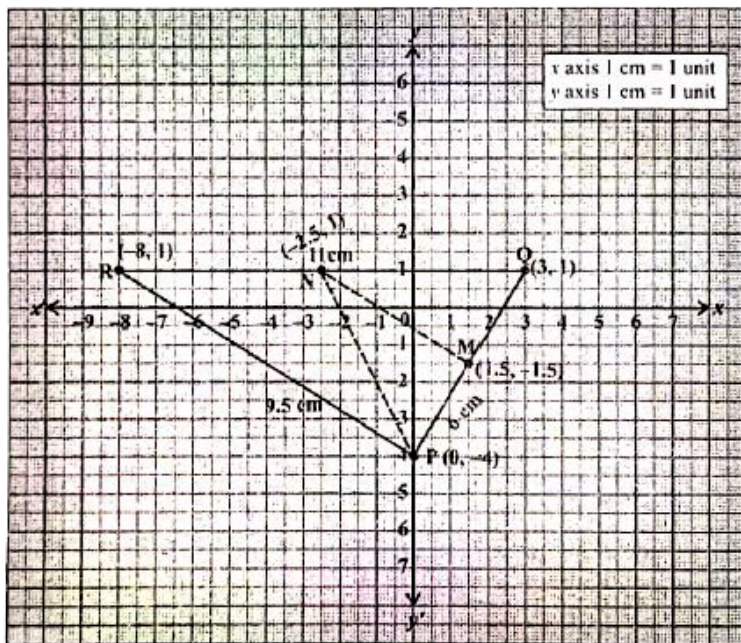
Check if $\triangle PQR$ is equilateral .

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5. The vertices of $\triangle PQR$ are P(0,-4),Q(3,1) and R(-8,1)

v axis I cm = I unit
v axis I cm = I unit
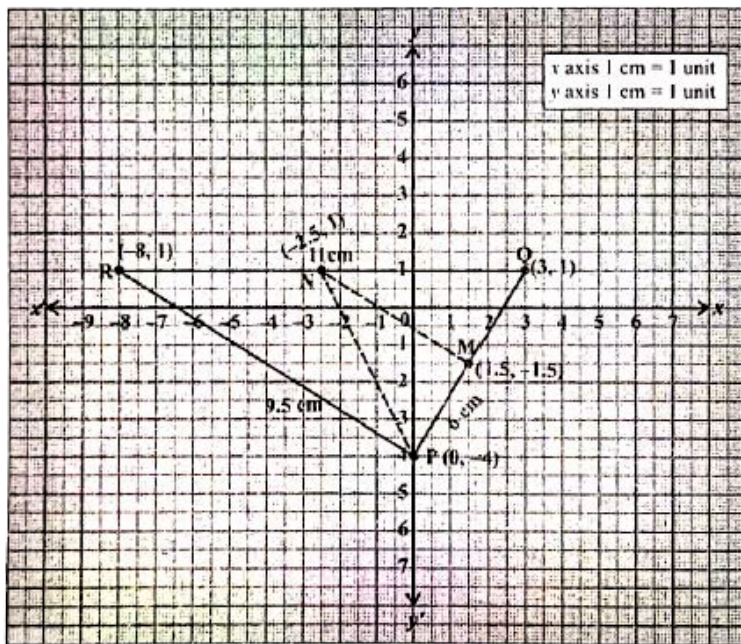
Find the area of $\triangle PQR$.

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**6.** The vertices of $\triangle PQR$ are P(0,-4),Q(3,1) and R(-8,1)

v axis 1 cm = 1 unit
y axis 1 cm = 1 unit
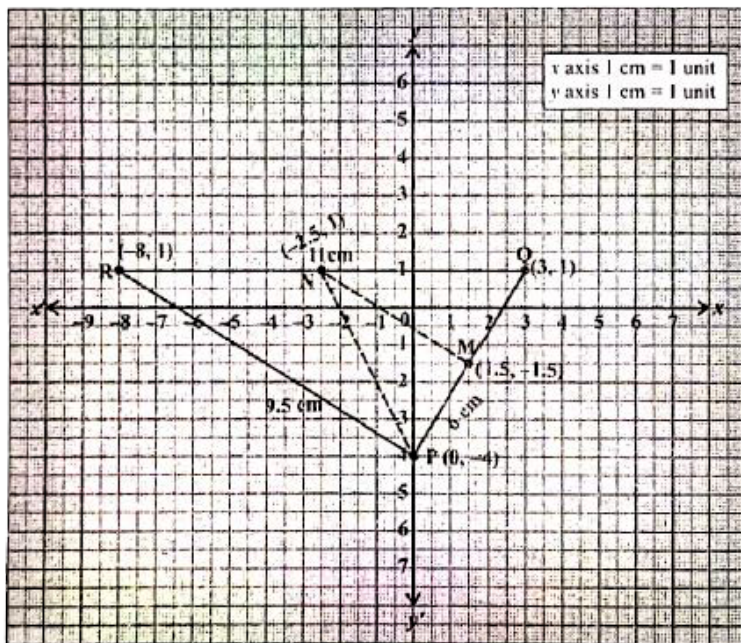
Find the coordinates of M , the mid-point of QP.

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7. The vertices of △ PQR are P(0,-4),Q(3,1) and

R(-8,1)
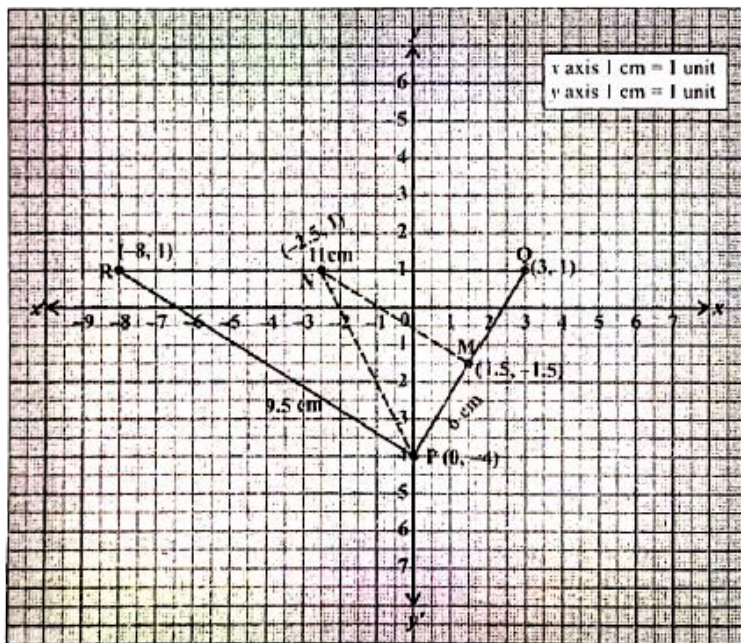
Find the coordinates of N, the mid-point of QR.

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8. The vertices of $\triangle PQR$ are P(0,-4),Q(3,1) and

R(-8,1)
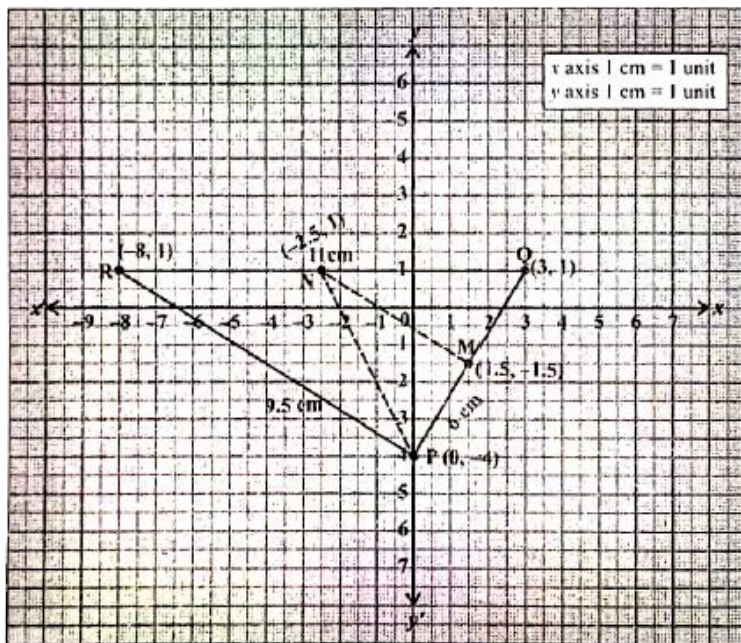
Find the area of $\triangle MPN$.

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9. The vertices of $\triangle PQR$ are $P(0,-4), Q(3,1)$ and R(-8,1)
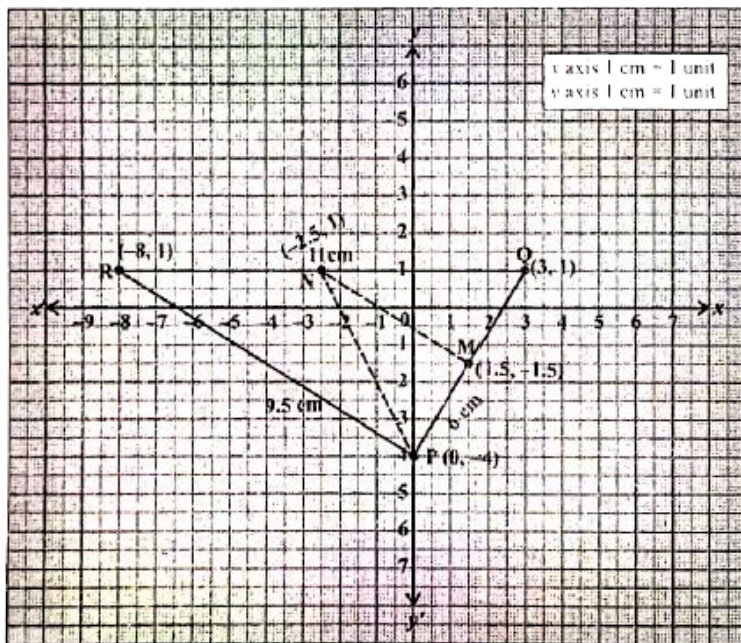
What is the ratio between the areas of $\triangle MPN$ and $\triangle PQR$?

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10. Given a quadrilateral ABCD with vertices A(-3,-8),B(6,-6),C(4,2) and D(-8,2).
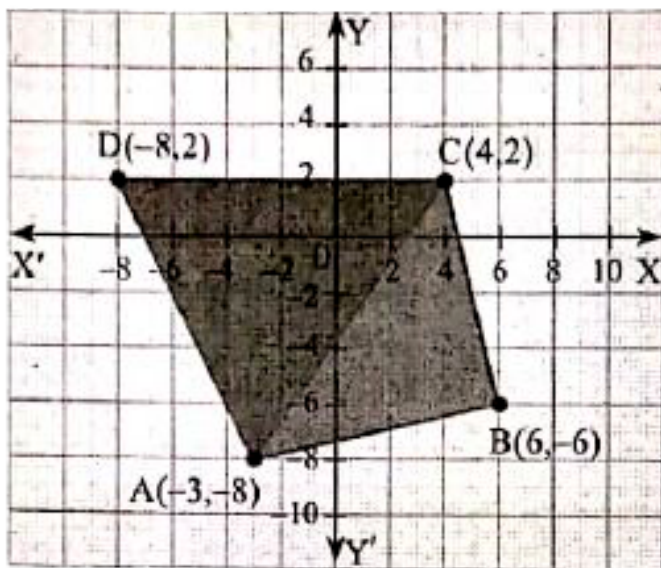
Find the area of $\triangle ABC$.

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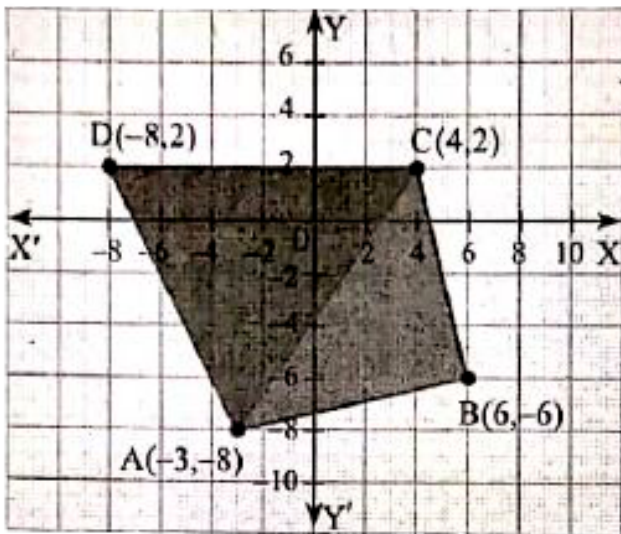**11.** Given a quadrilateral ABCD with vertices A(-3,-8),B(6,-6),C(4,2) and D(-8,2).
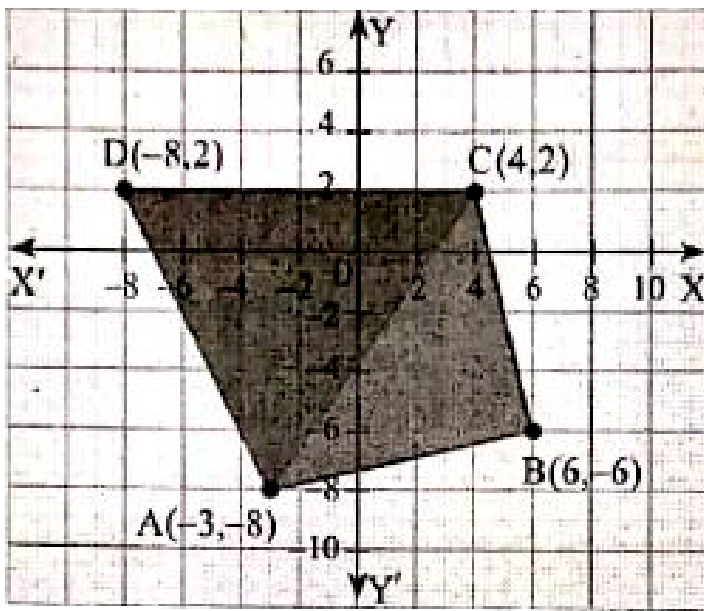
Find the area of $\triangle ACD$.

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12. Given a quadrilateral ABCD with vertices A(-3,-8),B(6,-6),C(4,2) and D(-8,2).
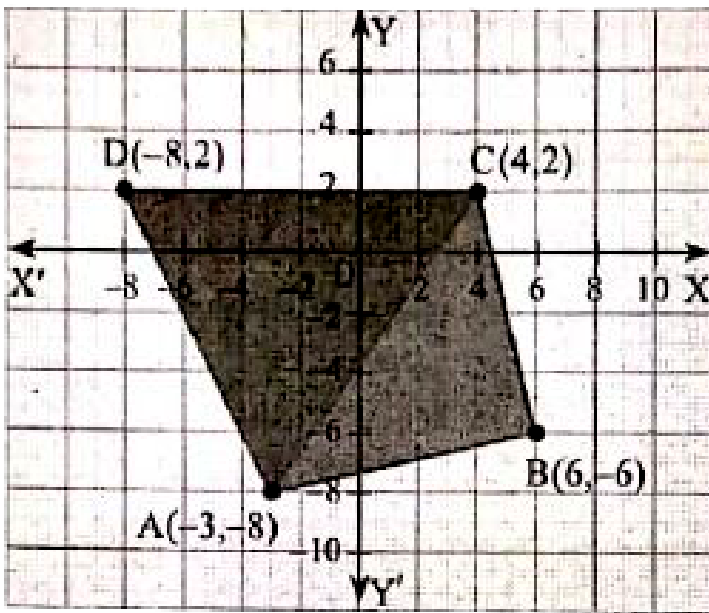
Calculate area of $\triangle ABC+$ area of $\triangle ACD$

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13. Given a quadrilateral ABCD with vertices A(-3,-8),B(6,-6),C(4,2) and D(-8,2).
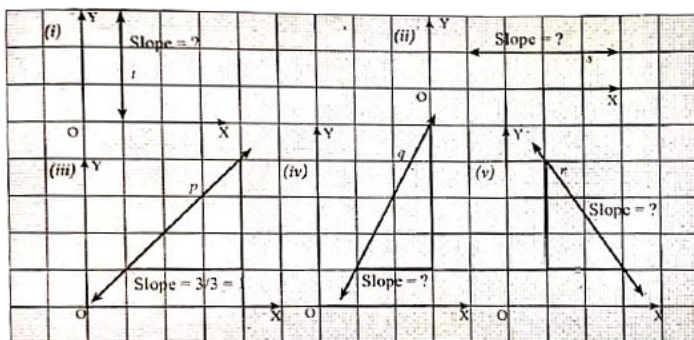
Find the area of quadrilateral ABCD.

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14. Write down the slope of each of the lines shown

on the grid below. One is solved for you .

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15. Complete the following blanks

S.No.	Points	Slope
1.	A $(-a, b)$, B $(3a, -b)$	---
2.	A $(2, 3)$, B $(\_, \_)$	2
3.	---	0
4.	---	undefined

---

16. Fill the details In respective boxes

Form	When to use?	Name
$y = mx + c$	Slope $= m$, Intercept $= c$ are given	Slope intercept form
$\dfrac{y - y_1}{y_2 - y_1} = \dfrac{x - x_1}{x_2 - x_1}$	Two points (x_1, y_1), (x_2, y_2) are given	Two points form
$\dfrac{x}{a} + \dfrac{y}{b} = 1$	The intercepts are given	Intercept form

17. Complete the following

S.No.	Equation	Slope	x intercept	y intercept
1.	$3x - 4y + 2 = 0$	----	----	----
2.	$y = 14x$	----	----	0
3.	—	----	2	-3

18. Fill the details In respective boxes

No.	Equations	Parallel or Perpendicular
1	$5x + 2y + 5 = 0$ $5x + 2y - 3 = 0$	$\frac{a_1}{a_2} = \frac{b_1}{b_2} = 1$, parallel
2	$3x - 7y - 6 = 0$ $7x + 3y + 8 = 0$	$a_1 a_2 + b_1 b_2 = 0$, Perpendicular
3	$8x - 10y + 11 = 0$ $4x - 5y + 16 = 0$	$\frac{a_1}{a_2} = \frac{b_1}{b_2} = 2$, Parallel
4	$2y - 9x - 7 = 0$ $27y + 6x - 21 = 0$	$a_1 a_2 + b_1 b_2 = 0$, Perpendicular

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Activities

1. Find the area of the shaded region.
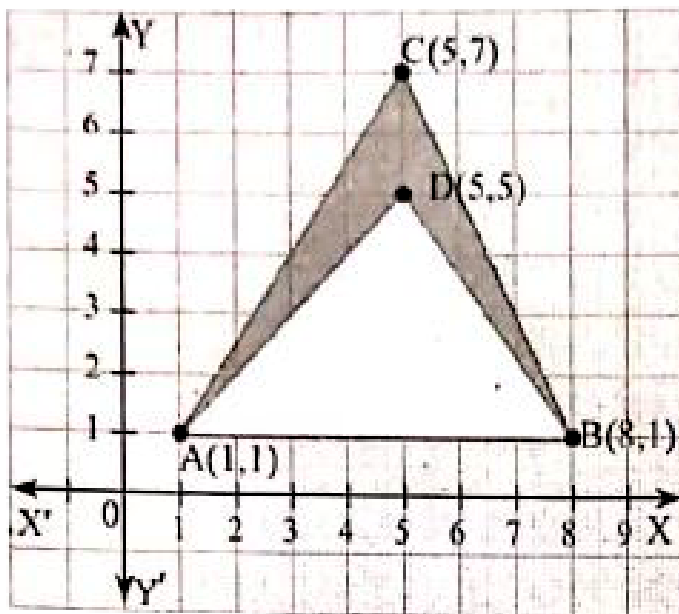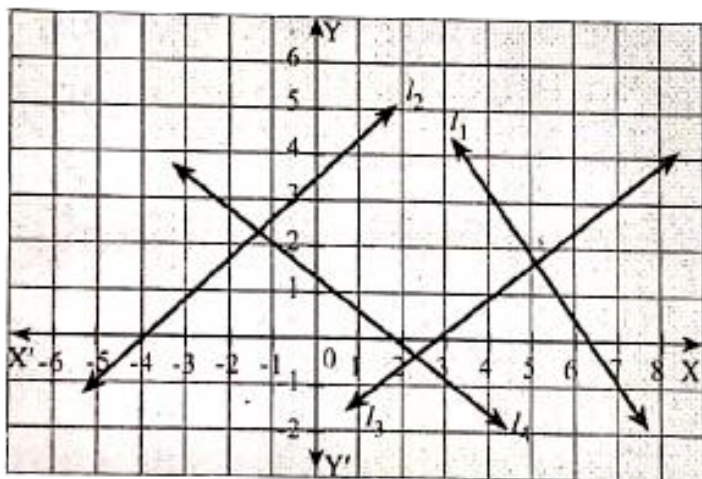
2. The diagram contain four lines l_1, l_2, l_3, l_4.
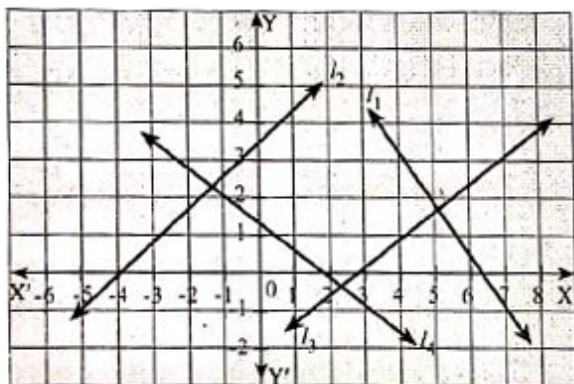
Which lines have positive slope ?

3. The diagram contain four lines l_1, l_2, l_3, l_4.
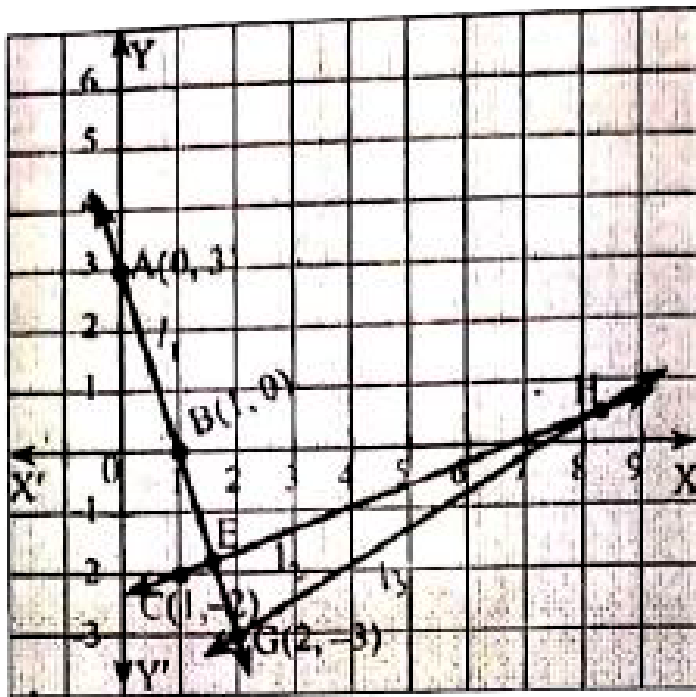

Which lines have negative slope ?

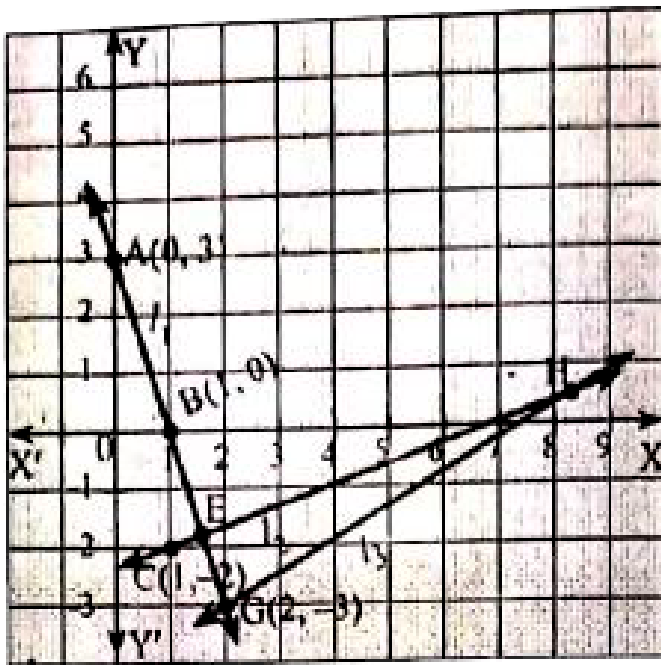**4.** If line l_1 is perpendicular to line l_2 and line l_3 has
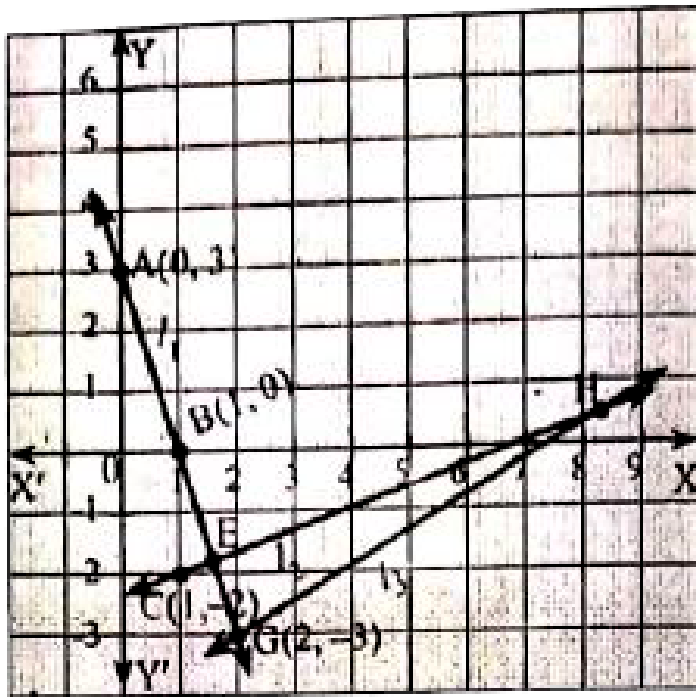
slope 3 then find the equation of line l_1

5. If line l_1 is perpendicular to line l_2 and line l_3 has slope 3 then find the equation of line l_2

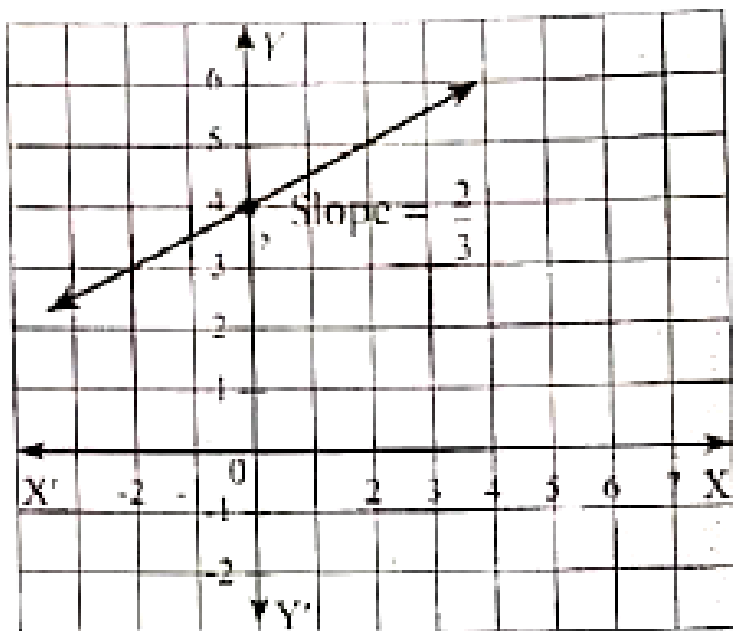**6.** If line l_1 is perpendicular to line l_2 and line l_3 has slope 3 then find the equation of line l_1

7. A ladder is placed against a vertical wall with its foot touching the horizontal floor . Find the equation of the ladder under the following conditions.
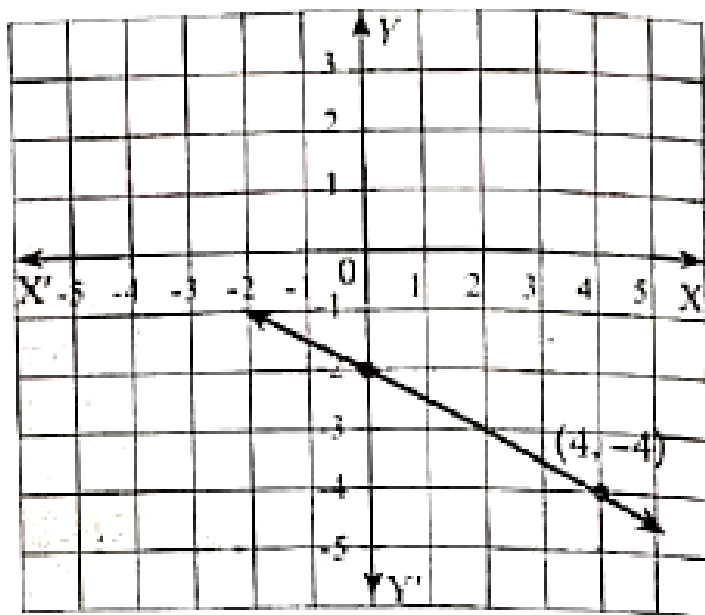
8. Find the equation of a straight line for the given diagrams.

9. Find the equation of a straight line for the given diagrams.
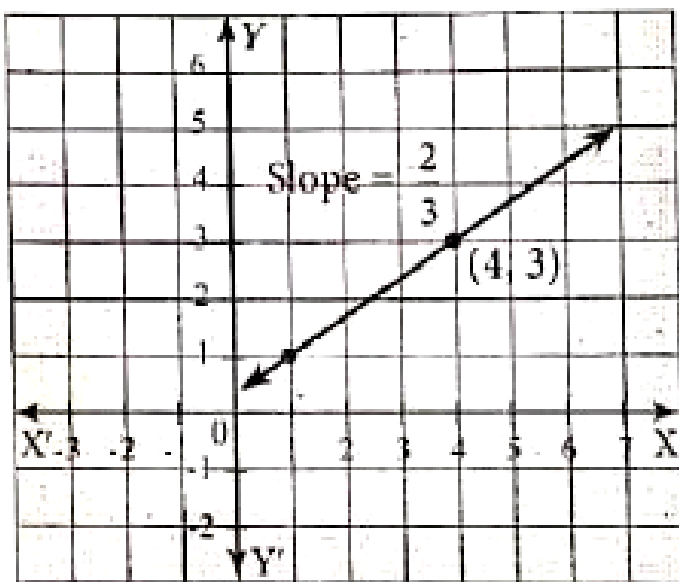
10. Find the equation of a straight line for the given diagrams.

11. Find the equation of a straight line for the given diagrams.
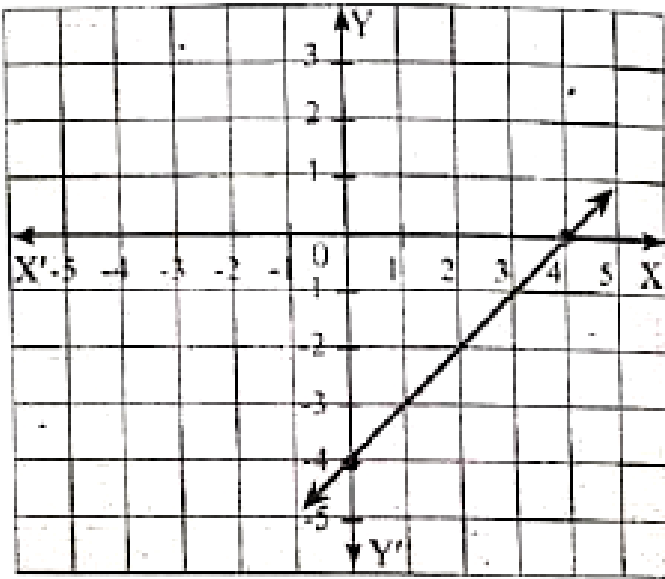
Other Important Objective

1. The area of the triangle formed by the points (0,0), (3,0) and (0,4) is :

A. 12 sq.units

B. 4 sq. units

C. 5 sq.units

D. 6 sq.units

Answer: D

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2. The line y=k is

A. Parallel to y -axis

B. Parallel to x -axis

C. Passing through origin

D. Passing through (k,0)

Answer: B

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3. If the points (7,-2) (3,-6) and (5,k) are collinear then the value of k is :

A. 4

B. -8

C. -4

D. 10

Answer: C

4. The line 5x-2y=11 and 2x+3y=12 intersect at :

A. (3,2)

B. (-3,-2)

C. (-3,2)

D. (3,-2)

Answer: A

5. The slope of the line 3x+2y-7=0 is :

A. $\dfrac{7}{2}$

B. $\dfrac{7}{3}$

C. $\dfrac{-2}{3}$

D. $\dfrac{-3}{2}$

Answer: D

6. The slope of the line joining (-2,-1) and (-5,8) is :

A. $\dfrac{1}{3}$

B. -3

C. $\dfrac{-1}{3}$

D. 3

Answer: B

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7. If A is (-7,2) and B is (2,-3) then the slope of the line

perpendicular to AB is :

A. $\dfrac{-9}{5}$

B. $\dfrac{5}{9}$

C. $\dfrac{-5}{9}$

D. $\dfrac{9}{5}$

Answer:

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8. The equation of line through (2,1) and parallel to

x+2y=5 is :

A. x+2y=4

B. x+2y=5

C. x-2y=4

D. 2x-y=4

Answer: A

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9. The equation of a line through origin and perpendicular to the line 23x-11y+7=0 is :

A. 23x-11y=0

B. 11x-23y=0

C. 11x+23y=0

D. 11x+23y+7=0

Answer: C

10. The vertices of a $\triangle ABC$ are (1,4)(3,5) and (-1,0)

then its centroid is :

A. (-1,-3)

B. (1,3)

C. (1,-3)

D. (-1,3)

Answer: B

11. The area of the triangle ABC whose vertices are

(2,1) (-3,4) (6,2) is :

A. 8.5 sq. units

B. 7.5 sq.units

C. 6.5 sq.units

D. 9.5 sq.units

Answer: A

12. If P(-1,2) , Q(k,-2) , R(7,4) are the vertices of

$\triangle\,PQR$ whose area is 22 sq.units then k is :

A. 5

B. 6

C. 7

D. 4

Answer: A

13. Given that the points (-4,-1) (a,b) and (-2,5) are collinear and if a+2b=1 find (a,b):

    A. (-2,3)

    B. (-3,2)

    C. (-3,-5)

    D. (-1,-3)

Answer: B

14. If (9,a) (3,2) (4,-1) are the vertices of a $\triangle ABC$ whose area is 7.5 sq.cm then a is :

A. 4

B. 3

C. 2

D. -1

Answer: D

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15. The equation of a straight line whose x intercept is 3 and y intercept is 4 is :

A. 4x+3y-12=0

B. 4x-3y-12=0

C. 3x+4y-12=0

D. 3x-4y-12=0

Answer: A

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16. The equation of the line with slope $\dfrac{1}{2}$ and passing through origin is :

    A. $2y-x=0$

    B. $x-2y=0$

    C. $y-2x=0$

    D. $2x+y+1=0$

Answer: A

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17. The equation of any straight line parallel to y-axis and passing through (2,5) is :

A. $x+2=0$

B. $x-2=0$

C. $y+5=0$

D. $y-5=0$

Answer: B

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18. The equation of the line whose inclination is $45°$

and x-intercept 7 is :

    A. x+y-7=0

    B. x-y+7=0

    C. x-y-7=0

    D. x+y+7=0

Answer: C

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19. The equation of a line through (-2,3) and where slope is $\dfrac{1}{3}$ is given by :

    A. y-3x+11=0

    B. x-3y+11=0

    C. y+3x-11=0

    D. x+3y-11=0

Answer: B

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20. Equation of the line joining (6,10) and (14,12) is :

A. 4x-y-34=0

B. x+4y+34=0

C. x-4y+34=0

D. 4x+y+34=0

Answer: C

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21. The equation of a straight line through (2,1) with equal intercepts on the coordinate axes is :

A. x+y-3=0

B. x-y-3=0

C. x+y+3=0

D. x-y+3=0

Answer: A

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22. Find the value of 'a' if the line through (-2,5)(2,-3) is perpendicular to y=ax+3

A. 2

B. $\dfrac{1}{2}$

C. $\dfrac{1}{3}$

D. 3

Answer: B

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23. The x and y intercepts of the line 2x+5y=10 are :

A. (5,2)

B. (2,5)

C. (-2,-5)

D. (-5,-2)

Answer: A

24. Find the slope of the line which is perpendicular

to 2x-4y+5=0

A. $\dfrac{1}{2}$

B. $\dfrac{-1}{2}$

C. -2

D. 2

Answer: C

25. A(-3,0),B(1,3),C(2,-1) are the vertices of $\triangle ABC$.

Then the equation of the altitude from A to BC is :