1. In diagram 1, *O* is the origin, point *R* lies on the x-axis and point *P* lies on the y-axis. Straight line PU is parallel to the x-axis and straight line *PR* is parallel to straight line *ST*. The equation of straight line *PR* is $x + 2y = 14$.

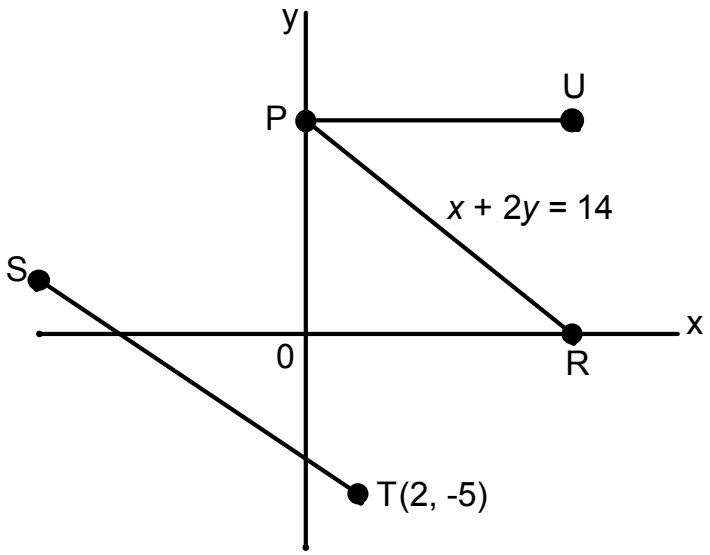


DIAGRAM 1

a) State the equation of the straight line *PU*.

b) Find the equation of the straight line *ST* and hence, state its *x*-intercept.

2. In Diagram 2, the straight line *PQ* is parallel to straight line *RS*. The equation of the straight line *PQ* is $3x + y = 6$.

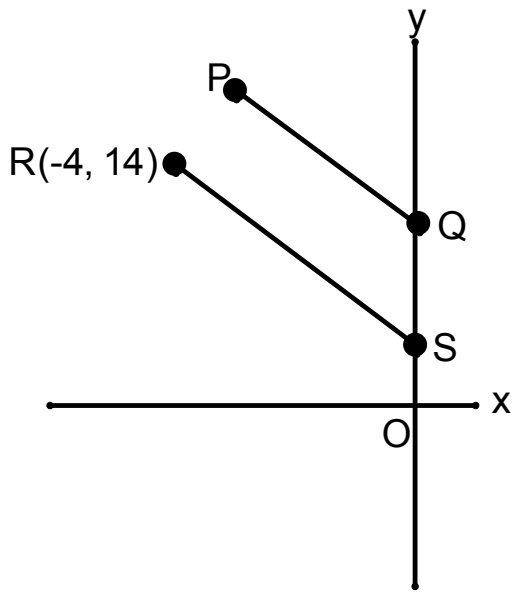


DIAGRAM 2

Find

a) the equation of the straight line *RS*,

b) the *x*-intercept of the straight line *RS*.

3. In Diagram 3, *OABC* is a trapezium. The straight line *AB* is parallel to the straight line *OC*.

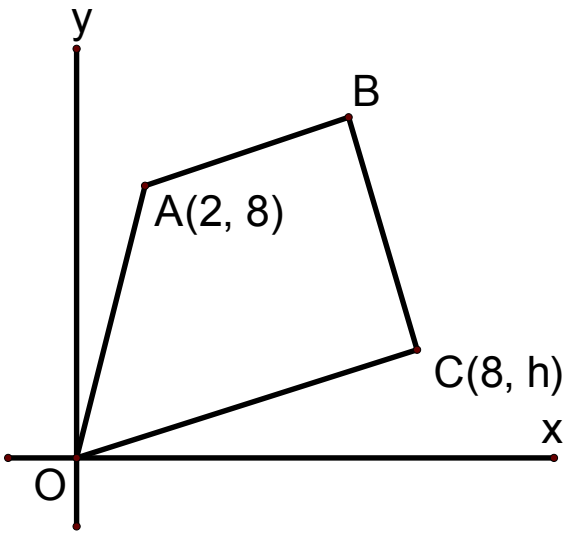


DIAGRAM 3

Given that the gradient of the straight line *OC* is $\frac{3}{4}$ and *O* is the origin, find

a) the value of *h*,

b) the equation of the straight line *AB*,

c) the *x*-intercept of the straight line *AB*.

4. In Diagram 4, the x-intercept of the straight line *QR* is 6, and the straight line *PQ* is parallel to the y-axis. The straight line *PS* is parallel to the straight line *QR*.

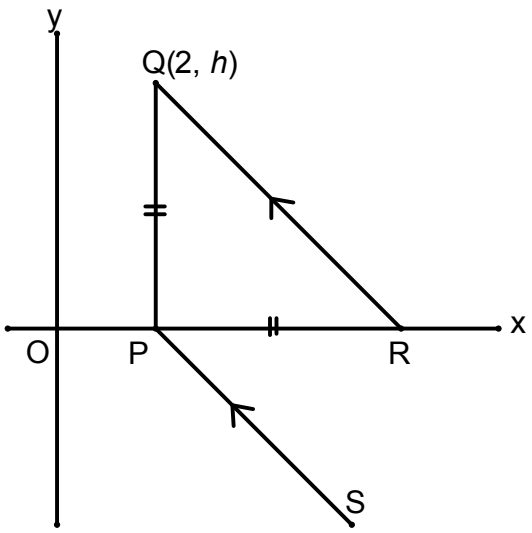


DIAGRAM 4

a) State the value of *h*,

b) State the equation of the straight line *PQ*.

c) Find the equation of the straight line *PS*.

5. In Diagram 5 shows two parallel lines VW and HKG. The point V is on the y-axis and the point K is on the x-axis.

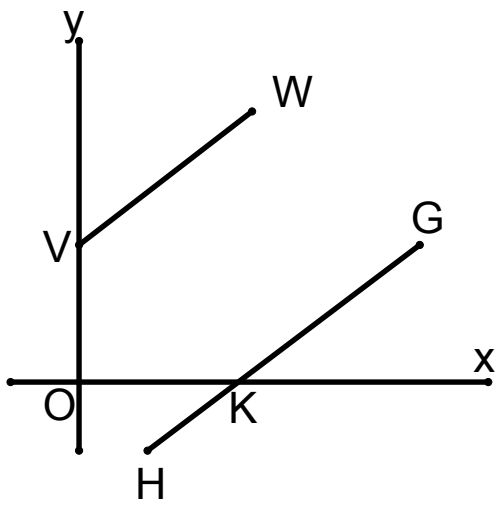


DIAGRAM 5

The equation of VW is $5y = 4x + 25$.

a) Find the coordinates of the point V.

b) If the x-intercept of the straight line HKG in 6, fins the equation of HKG.

6. Diagram 6, *O* is the origin and the point *Q* lies on the x-axis. The straight line *PQ* is parallel to the straight line *ST*.

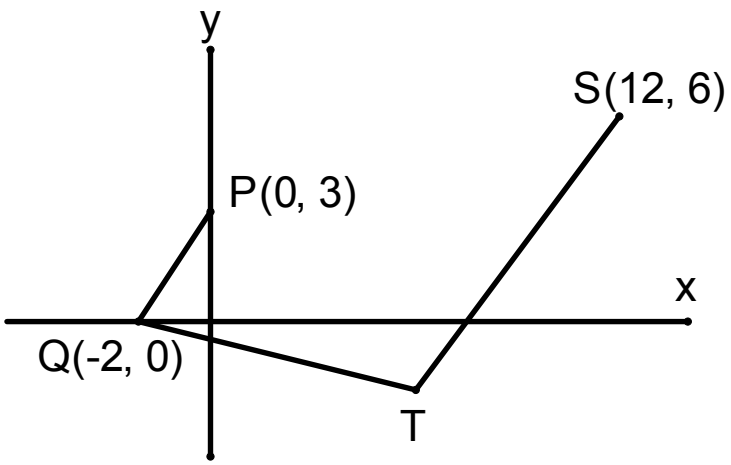


DIAGRAM 6

Given that the equation of the straight line QT is $y + x + 2 = 0$, find

(a) the gradient of *PS*

(b) the equation of the straight line *ST* and hence state its *x*-intercept.

7. In Diagram 7, straight line *PQ* and straight line *RS* are parallel.

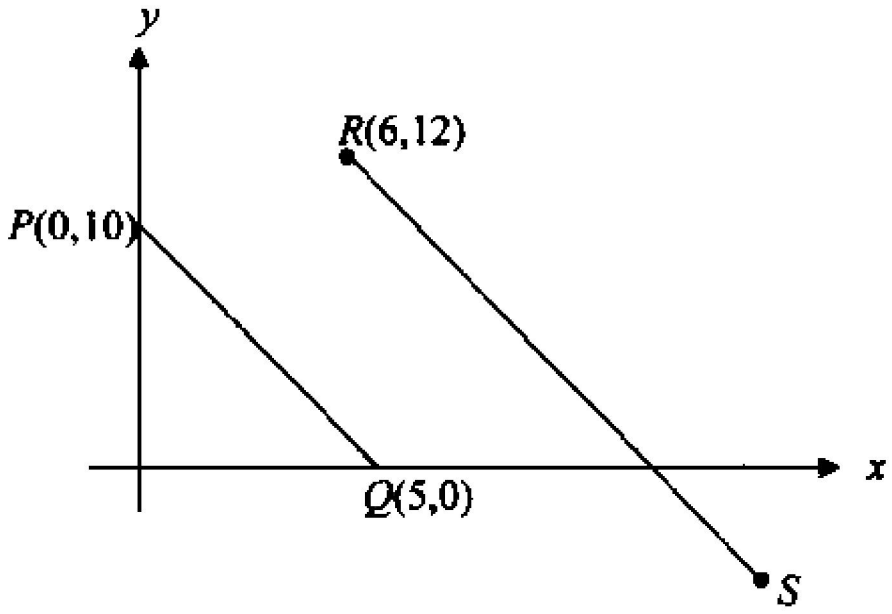


DIAGRAM 7

Find

a) the equation of the straight line *RS*,

b) the x-intercept of the straight line *RS*.

8. In Diagram 8, O is the origin. JK, KL and LM are straight lines. JK is parallel to LM and KL is parallel to the x-axis.

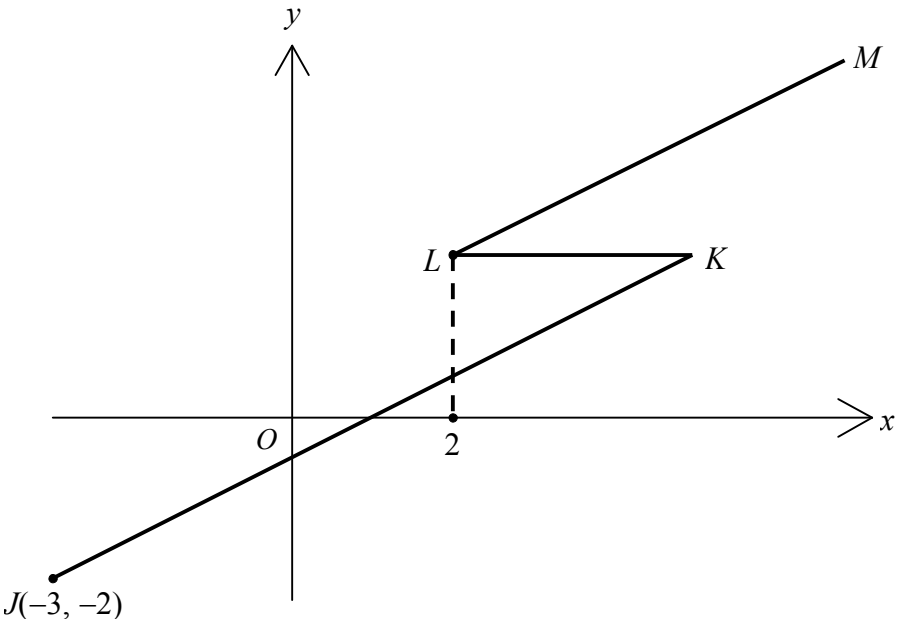


DIAGRAM 8

The equation of LM is $2y = x + 4$.

(a) State the equation of the straight line KL.

(b) Find the equation of the straight line JK and hence, state its y-intercept.

9. In Diagram 9, *O* is the origin. The gradient of the straight line *MN* is $\frac{2}{3}$. Given that straight line *PQ* is parallel to straight line *MN.*

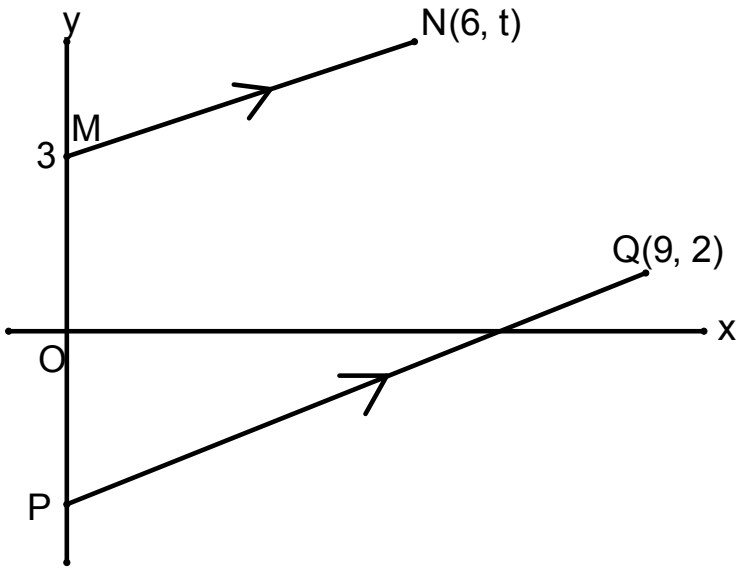


DIAGRAM 9

Find

(a) the value of *t*

(b) the equation of straight line *PQ*

(c) the *y*-intercept of the straight line *PQ.*

10. In Diagram 10, KL, LM and MN are three straight lines. OK is parallel to LM and KL is parallel to MN. The equation of the straight line KL is $4x + 3y = 8$.

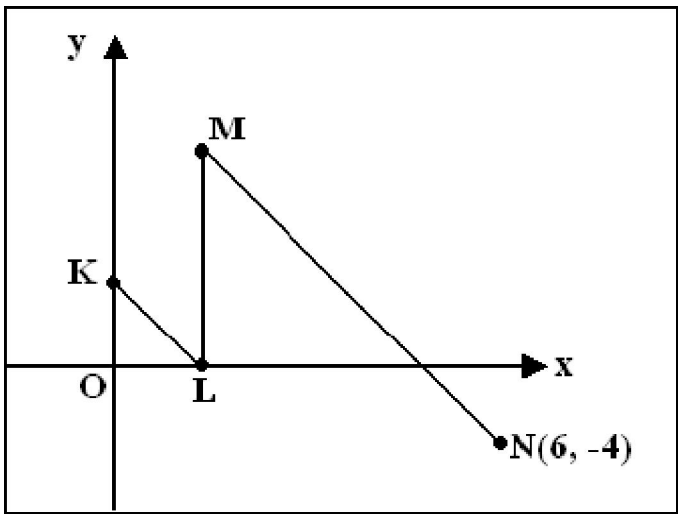


DIAGRAM 10

Find

(a) the equation of the straight line LM.

(b) the equation of straight line MN and hence, state its y-intercept.

11. In diagram 11, PQRS is a parallelogram. The equation of the straight line PQ is $3y = 4x - 24$ and O is the origin.

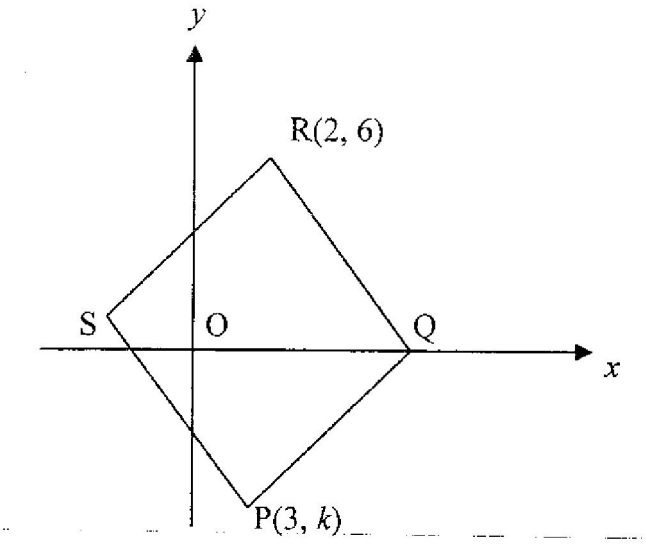


DIAGRAM 11

Find

a) the value of k,

b) the y-intercept of QR

c) the equation of RS

12. In diagram 12, *OPQR* is parallelogram and *O* is the origin.

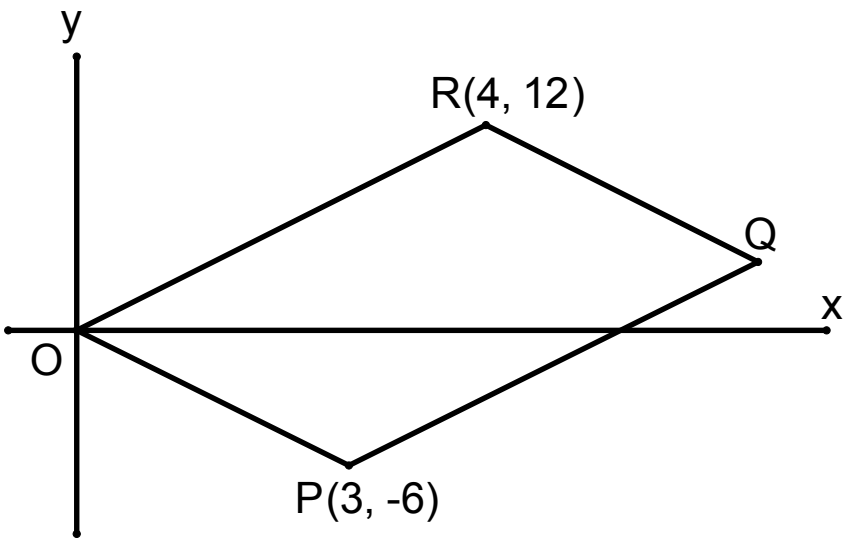


DIAGRAM 12

Find

a) the equation of the straight line *PQ*,

b) the y-intercept of the straight line *QR*.

13. In Diagram 13 shoes a straight line PQ and a straight line RS drawn on a Cartesian plane. PQ is parallel to RS.

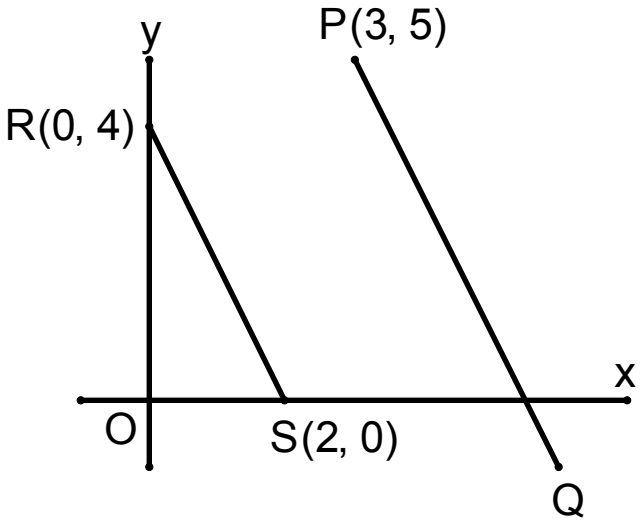


DIAGRAM 13

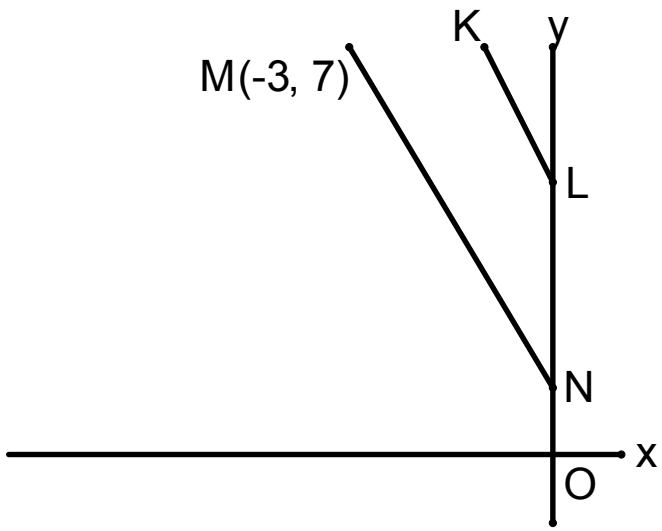
Find

a) the equation of the straight line PQ,

b) the x-intercept of the straight line PQ.

14. In diagram 14, *O* is the origin. Straight line *KL* is parallel to straight line *MN*. The equation of straight line *KL* is $2x + y = 4$.

The point L and N lie on the *y* axis.



DIAGARM 14

Find

a) the equation of the straight line *MN*,

b) the x-intercept of the straight line *MN*.