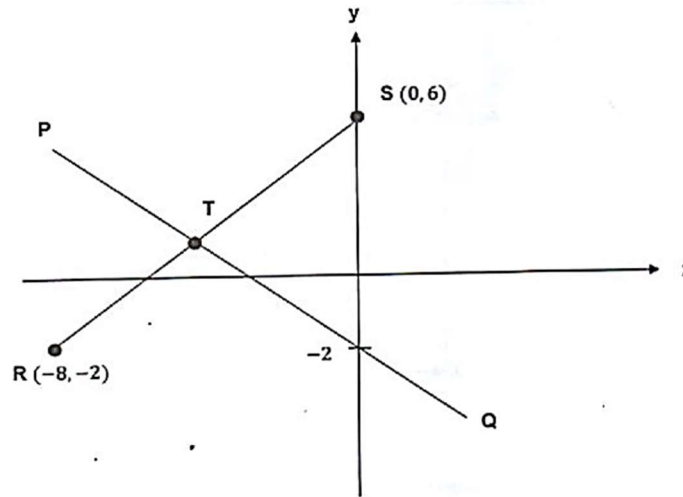


GARIS LURUS / STRAIGHT LINE

1. KELANTAN

Rajah 3 menunjukkan dua garis lurus PQ dan RS. Titik T adalah titik tengah bagi garis lurus RS.

Diagram 3 shows two straight lines PQ and RS. Point T is the midpoint of the straight line RS.



Rajah 3/ Diagram 3

(a) Tentukan koordinat T.

Determine the coordinates of T.

[2 markah / mark

(b) Cari persamaan garis lurus PQ.

Find the equation of the straight line PQ.

[2 markah / mark

Jawapan / Answer:

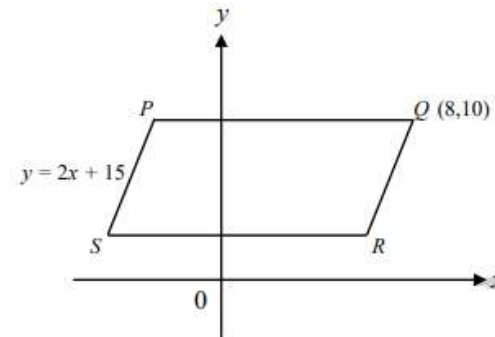
(a)

(b)

2. PAHANG SET 1

Rajah 2 menunjukkan sebuah segi empat selari PQRS. Persamaan garis lurus PS ialah $y = 2x + 15$ dan garis lurus PQ dan SR selari dengan paksi-x.

Diagram 2 shows a parallelogram PQRS. The equation of straight line PS is $y = 2x + 15$ and straight line PQ and SR are parallel to the x-axis.



Rajah 2 / Diagram 2

(a) Cari persamaan garis lurus QR,

Find the equation of straight line QR,

[3 markah / marks]

(b) Cari pintasan-x bagi garis lurus QR.

Find the x-intercept of the straight line QR.

[2 markah / marks]

Jawapan / Answer

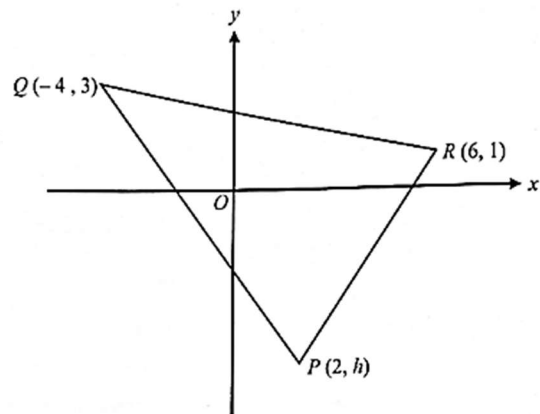
(a)

(b)

3. KEDAH

Rajah 11 menunjukkan sebuah segi tiga PQR dilukis pada suatu satah Cartes.

Diagram 11 shows a triangle PQR drawn on a Cartesian plane.



Rajah/ Diagram 11

(a) Cari

Find

(i) persamaan bagi garis lurus QR .
the equation of the straight line QR .

[3 markah/marks]

(ii) pintasan-x bagi garis lurus QR .
the x-intercept of the straight line QR .

[2 markah/marks]

(b) Diberi jarak bagi garis lurus PQ ialah 10 unit. Cari nilai bagi h .

Given the distance of the straight line PQ is 10 units. Find the value of h .

[3 markah/marks]

Jawapan / Answer :

(a) (i)

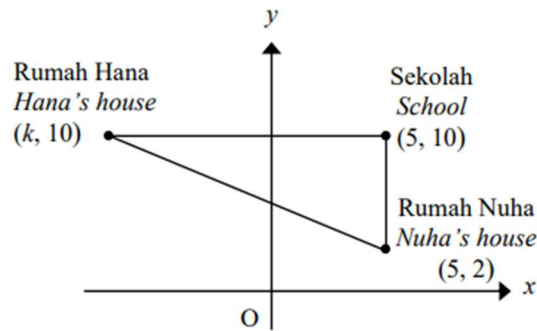
(ii)

(b)

4. YIK

Rajah 4 menunjukkan kedudukan rumah Hana, rumah Nuha dan sekolah yang dilukis pada suatu satah Cartes.

Diagram 4 shows the position of Hana's house, Nuha's house and the school drawn on a Cartesian plane.



Rajah 4
Diagram 4

Jawapan/Answer :

(a)

(a) Nyatakan persamaan garis lurus yang menghubungkan rumah Hana dan sekolah.

State the equation of the straight line that connects Hana's house and the School.

(b) Nuha menaiki kereta dari rumahnya ke sekolah yang sejauh 15 km. Jika 1 unit mewakili 1 km cari nilai k .

Nuha takes a car from her house to the school which is 15 km away. If 1 unit represents 1 km find the value of k .

(c) Jalan yang menghubungkan rumah Hana dengan rumah Nuha adalah selari dengan jalan raya yang menghubungkan sekolah dan masjid. Cari persamaan garis lurus yang mewakili jalan antara sekolah dan masjid itu.

The road that connects Hana's house with Nuha's house is parallel to the road that connects the school and the mosque. Find the equation of the straight line that represents the road between the school and the mosque.

[5 markah]

[5 marks]

(b)

(c)

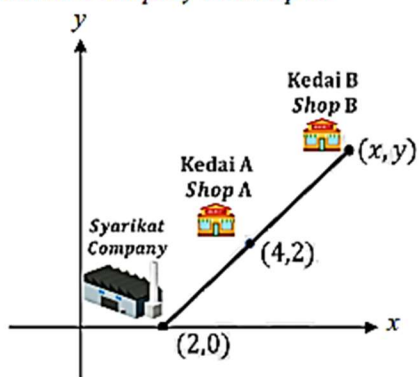
5. PAHANG SET 2

Suresh merupakan seorang pemandu syarikat penghantaran yang ditugaskan untuk menghantar bungkusan ke destinasi yang dikehendaki oleh pelanggan.

Suresh is a truck driver at a transport company. He is tasked with delivering orders to the client's desired destination.

- (a) Rajah 12 menunjukkan perjalanan Suresh dari syarikat penghantaran ke kedai A dan kedai B yang dilukis pada suatu satah Cartes. Kedai A terletak sama jarak di antara syarikat penghantaran dan kedai B.

Diagram 12 shows the journey taken by Suresh from the transportation company to shop A and shop B drawn on a Cartesian plane. Shop A is located at the same distance between transportation company and shop B.



Rajah 12 / Diagram 12

Cari koordinat Kedai B.

Find the coordinates for Shop B.

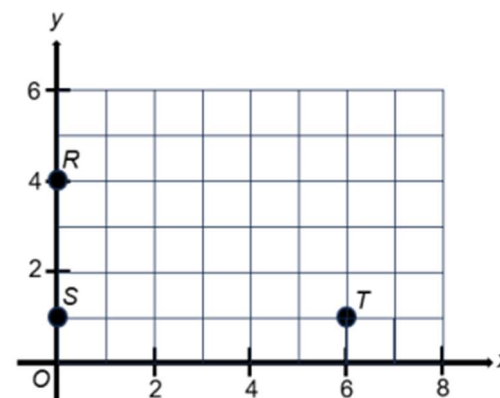
[2 markah / marks]

Jawapan / Answer :

6. MELAKA

Rajah 1 menunjukkan tiga titik R, S dan T yang dilukis pada suatu satah Cartes.

Diagram 1 shows three points, R, S and T drawn on a Cartesian plane.



Rajah 1 / Diagram 1

- (a) Titik U tidak dilukis pada Rajah 1 dan diberi bahawa $RSTU$ membentuk sebuah segi empat tepat. Nyatakan koordinat titik U.
Point U is not drawn in Diagram 1 and given that $RSTU$ forms a rectangle. State the coordinates of point U.

[1 markah / mark]

- (b) Hitung koordinat titik M jika titik S ialah titik tengah bagi garis lurus USM .
Calculate the coordinates of point M if point S is the midpoint of the straight line USM .

[2 markah / marks]

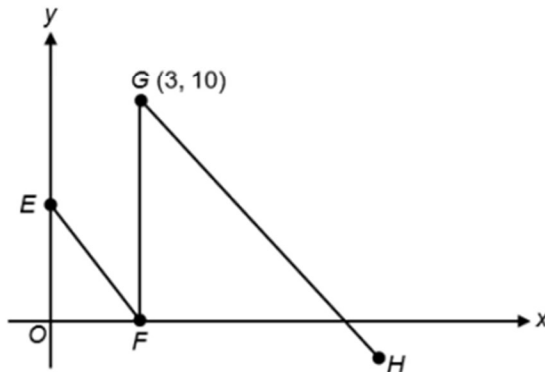
Jawapan / Answer :

(a)

(b)

7. MELAKA

- (a) Rajah 5.1 menunjukkan tiga garis lurus EF , FG dan GH . Titik F berada pada paksi- x . EF selari dengan GH dan FG selari dengan paksi- y . Diberi bahawa persamaan EF ialah $2x + y = 6$.
Diagram 5.1 shows three straight lines EF , FG and GH . Point F is on the x -axis. EF is parallel to GH and FG is parallel to the y -axis. Given that the equation of EF is $2x + y = 6$.



Rajah 5.1 / Diagram 5.1

- (i) Nyatakan persamaan garis lurus FG .
State the equation of straight line FG .
- (ii) Tentukan pintasan- x bagi GH .
Determine the x -intercept for GH .

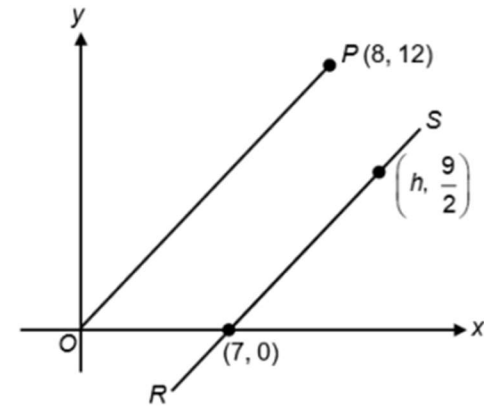
[5 markah / marks]

Jawapan / Answer :

(a) (i)

(ii)

- (b) Rajah 5.2 menunjukkan dua garis lurus, OP dan RS , dilukis pada suatu satah Cartes. Garis lurus OP adalah selari dengan RS .
Diagram 5.2 shows two straight lines, OP and RS , drawn on a Cartesian plane. The straight line OP is parallel to RS .



Rajah 5.2 / Diagram 5.2

Cari / Find

- (i) kecerunan garis OP .
the gradient of OP .
- (ii) nilai h .
the value of h .

[4 markah / marks]

Jawapan / Answer :

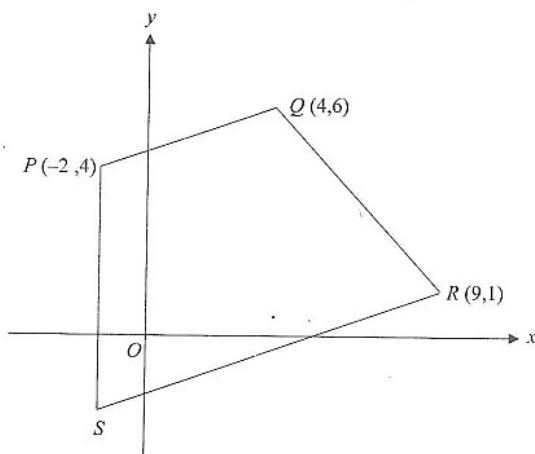
(b) (i)

(ii)

8. SABK

Rajah 7 menunjukkan sebuah trapezium $PQRS$ dan O ialah asalan. Garis lurus PQ adalah selari dengan garis lurus SR manakala garis lurus PS adalah selari dengan paksi- y .

Diagram 7 shows that a trapezium $PQRS$ and O is an origin. Straight line PQ is parallel to straight line SR while straight line PS is parallel to y -axis.



Rajah 7
Diagram 7

Cari

Find

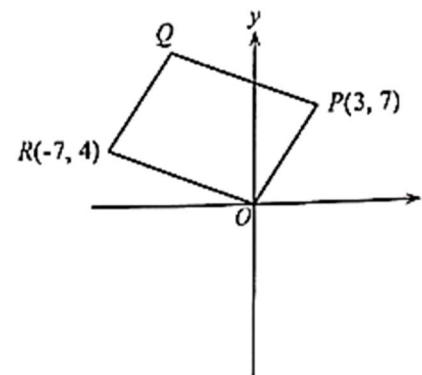
- (a) kecerunan garis lurus QR . [2 markah]
the gradient for the straight line QR . [2 marks]
- (b) persamaan garis lurus SR . [3 markah]
the equation of the straight line SR . [3 marks]

Jawapan / Answer :

(a) (b)

9. N9

Rajah 3 menunjukkan sebuah segi empat selari $OPQR$, yang dilukis pada satah Cartes.
Diagram 3 shows a parallelogram $OPQR$ drawn on a Cartesian plane.



Rajah 3
Diagram 3

Cari persamaan bagi garis lurus QR .

Find the equation of the straight line QR .

[3 markah]
[3 marks]

Jawapan / Answer:

10. SELANGOR SET 1

Rajah 3 menunjukkan kedudukan lima bandar O , A , B , C dan D yang dilukis pada satah Cartes.

Diagram 3 shows the positions of five towns O , A , B , C and D drawn on a Cartesian plane.

Diberi skala ialah 1 unit = 1 km. Jarak Bandar A dan B dari Bandar O adalah sama. Diberi juga jalan yang menghubungkan Bandar A dan B adalah selari dengan jalan yang menghubungkan Bandar C dan D .

Given the scale 1 unit = 1 km. The distance of the Town A and B from Town O are the same. It is given the road that connects Town A and B is parallel to road that connects the Town C and D .

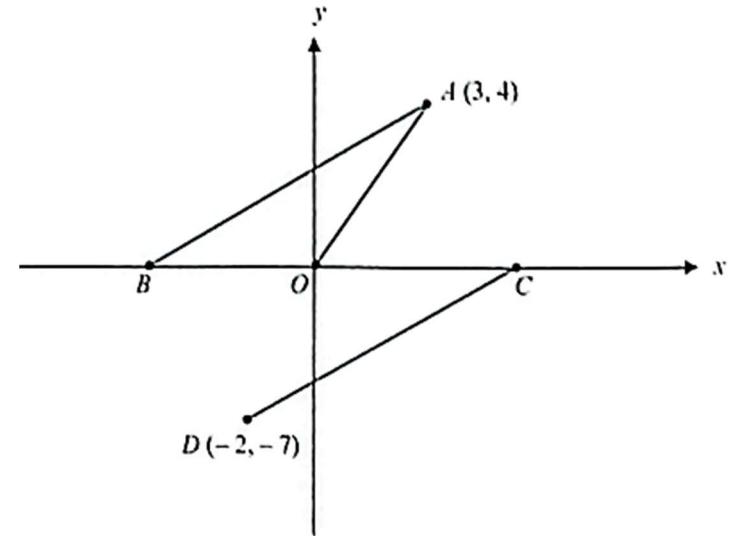
Cari

Find

- | | |
|---|-------------------------|
| (a) jarak, dalam km, di antara Bandar O dan Bandar B ,
<i>distance, in km, between Town O and Town B,</i> | [1 markah]
[1 mark] |
| (b) persamaan garis lurus yang menghubungkan Bandar C dengan Bandar D .
<i>the equation of the straight line connecting Town C and Town D.</i> | [3 markah]
[3 marks] |

Jawapan / Answer :

- | | |
|-----|-----|
| (a) | (b) |
|-----|-----|



Rajah 3
Diagram 3

11. SELANGOR SET 2

Rajah 5 menunjukkan dua utas tali AE dan BD yang diikat secara selari pada sebatang tiang kayu yang tegak EC .

Diagram 5 shows two ropes AE and BD tied in a parallel way to the vertical wooden pole EC .

Diberi persamaan garis lurus BD ialah $4y - 3x = 48$ dan nisbah jarak $AB : BC$ ialah $3 : 4$.

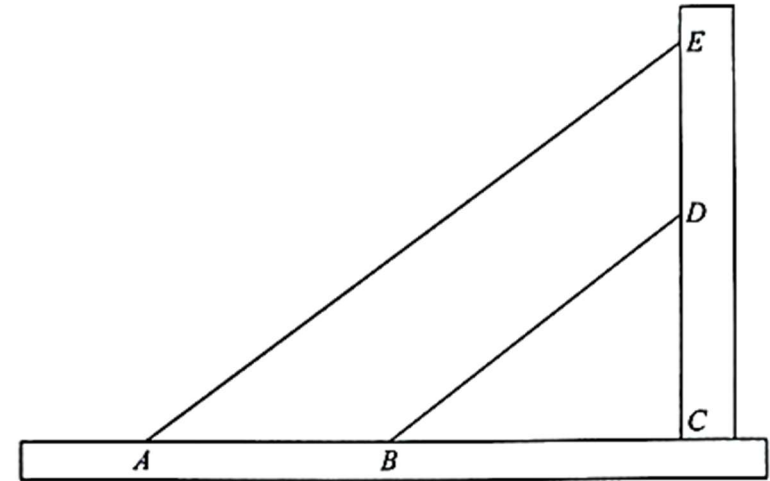
Given the equation of straight line BD is $4y - 3x = 48$ and the ratio of distance $AB : BC$ is $3 : 4$.

Cari,
Find,

- (a) persamaan garis lurus AE , [3 markah]
the equation of the straight line AE , [3 marks]
- (b) jarak ED . [1 markah]
the distance of ED . [1 mark]

Jawapan / Answer :

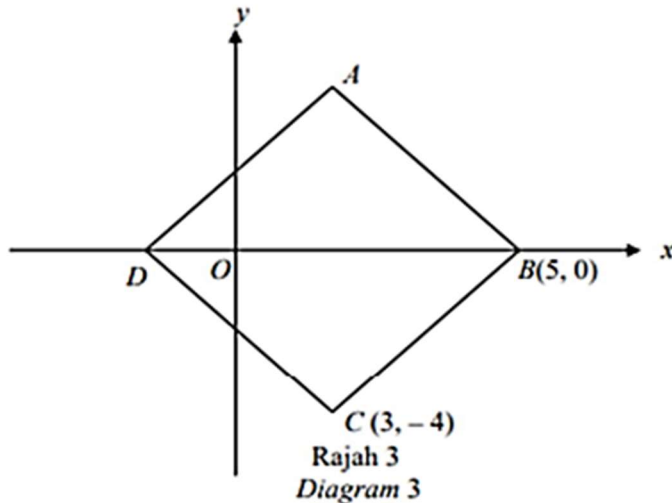
- (a) (b)



Rajah 5
Diagram 5

12. TERENGGANU MPP3

Rajah 3 menunjukkan sebuah rombus $ABCD$. O adalah asalan. Diberi bahawa kecerunan bagi garis lurus CD adalah -2 .
 Diagram 3 shows a rhombus $ABCD$. O is the origin. The gradient of straight line CD is -2 .



Cari
Find

- (a) persamaan bagi garis lurus AB ,
the equation of the straight line AB ,
- (b) kecerunan garis lurus AD .
the gradient of straight line AD .

[4 markah]
[4 marks]

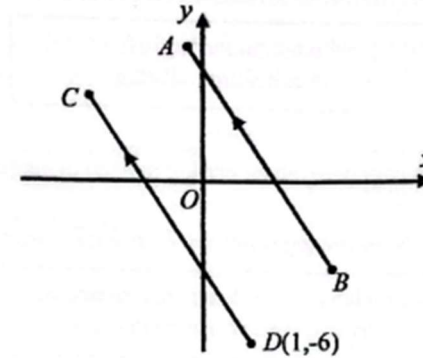
Jawapan / Answer :

(a)

(b)

13. MUAR JOHOR

Dalam Rajah 3, garis lurus AB adalah selari dengan garis lurus CD .
 In Diagram 3, straight line AB is parallel to the straight line CD .



Rajah 3
Diagram 3

Diberi persamaan garis lurus AB ialah $2y = -3x + 12$.

Cari persamaan bagi garis lurus CD .

Given that the equation of the straight line AB is $2y = -3x + 12$.

Find the equation of the straight line CD .

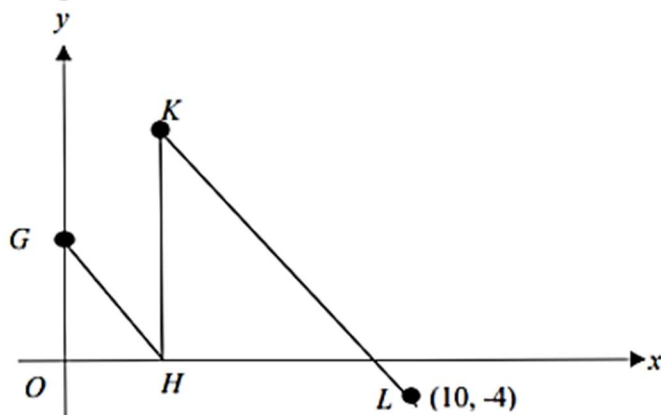
[3 markah / marks]

Jawapan / Answer:

14. PPT YIK

Rajah 5 menunjukkan dua garis lurus yang selari, GH dan KL, pada suatu satah Cartes dengan O ialah asalan.

Diagram 5 shows two parallel straight lines, GH and KL, on a Cartesian plane with origin O.



Rajah 5
Diagram 5

Diberi bahawa persamaan GH ialah $2x + y = 6$. Cari pintasan-x bagi garis lurus KL.

It is given that the equation of GH is $2x + y = 6$. Find the x-intercept of the straight line KL.

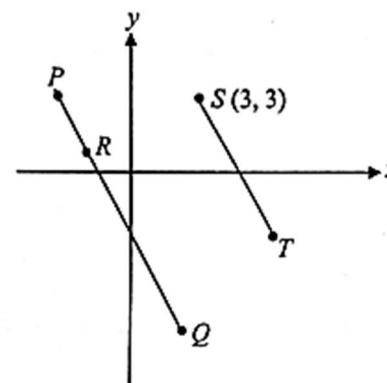
[3 marks/ markah]

Jawapan/ Answer :

15. TERENGGANU MPP2

Rajah 2 menunjukkan garis lurus PQ yang melalui titik R (-2, 1) dilukis pada suatu satah Cartes. Diberi persamaan garis lurus PQ ialah $y = -2x + k$, di mana k adalah pemalar. Garis lurus ST adalah selari dengan garis lurus PQ.

Diagram 2 shows a straight line PQ passing through a point R (-2, 1) drawn on a Cartesian plane. Given the equation of straight line PQ is $y = -2x + k$, where k is the constant.



Rajah 2
Diagram 2

- (a) Cari nilai k,
Find the value of k,

[1 markah]
[1 mark]

- (b) Cari persamaan garis lurus ST.
Find the equation of the straight line ST.

[3 markah]
[3 marks]

Jawapan / Answer :

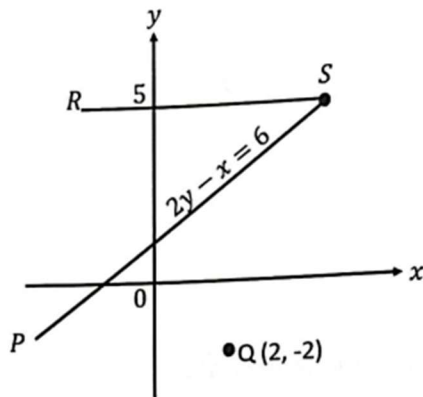
(a)

(b)

16. PPT KELANTAN

Rajah 4 menunjukkan garis lurus RS dan PS yang bersilang di titik S . Garis lurus RS adalah selari dengan paksi- x .

Diagram 4 shows the straight lines RS and PS that intersect at point S . The straight line RS is parallel to x -axis.



Rajah 4 / Diagram 4

- (a) Nyatakan koordinat titik S . [2 markah]
State the coordinates of point S . [2 marks]

- (b) Cari persamaan garis lurus yang selari dengan garis lurus PS dan melalui titik Q . [2 markah]

Find the equation of the straight line which is parallel to PS and passes through the point Q . [2 marks]

Jawapan / Answer:

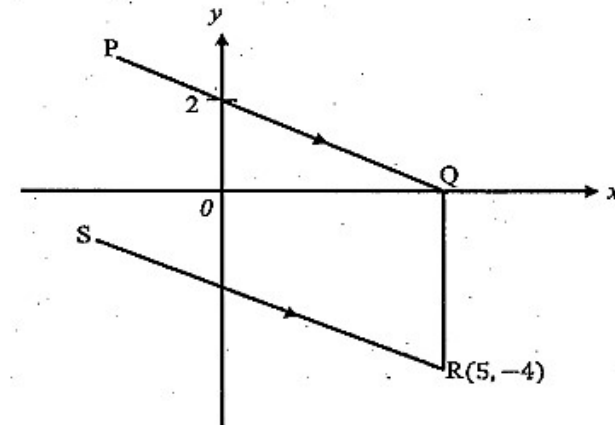
(a)

(b)

17. PPT PAHANG

Rajah 2 menunjukkan garis lurus PQ , QR dan SR dilukis pada suatu satah Cartesian. Garis lurus QR adalah selari dengan paksi- y dan PQ adalah selari dengan SR .

Diagram 2 shows straight lines PQ , QR and SR drawn on a Cartesian plane. Straight line QR is parallel to y -axis and PQ is parallel to SR .



Rajah 2
Diagram 2

- Cari persamaan bagi garis lurus RS . [3 markah / marks]
Find the equation of the straight line RS .

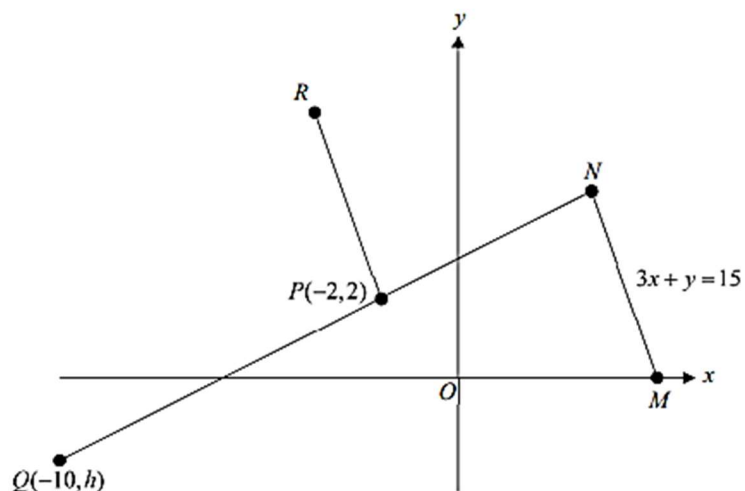
Jawapan / Answer :

18. PPT KEDAH

Rajah 12 menunjukkan garis lurus MN selari dengan garis lurus PR dilukis pada satah Cartes. Titik O ialah asalan.

Diagram 12 shows the straight line MN parallel to the straight line PR drawn on a Cartesian plane.

Point O is the origin.



Rajah / Diagram 12

- (a) Diberi kecerunan bagi garis lurus NPQ ialah $\frac{1}{2}$. Cari nilai h .

Given the gradient of the straight line NPQ is $\frac{1}{2}$. Find value of h .

- (b) Diberi persamaan garis lurus MN ialah $3x + y = 15$.

Given the equation of straight line MN is $3x + y = 15$.

- (i) Tukarkan persamaan garis lurus MN kepada bentuk $\frac{x}{a} + \frac{y}{b} = 1$.

Change the equation of straight line MN to the form $\frac{x}{a} + \frac{y}{b} = 1$.

- (ii) Cari pintasan- x bagi garis lurus MN .

Find the x -intercept of the straight line MN .

- (iii) Cari persamaan garis lurus PR .

Find the equation of a straight line PR .

[8 markah / marks]

Jawapan / Answer:

(a)

(b) (i)

(ii)

(iii)

SKEMA JAWAPAN :**1. KELANTAN**

(a)	$\left(\frac{-8+0}{2}, \frac{-2+6}{2}\right)$	1	4
	$(-4, 2)$	1	
(b)	$\frac{2-(-2)}{-4-0}$ atau setara	1	
	$y = -x - 2$	1	

2. PAHANG SET 1

(a)	2	1	5
	$10 = 2(8) + c$	1	
	$y = 2x - 6$	1	
(b)	$0 = 2x - 6$	1	
	pintasan $-x = 3$	1	

3. KEDAH

(a)	(i)	$\frac{3-1}{-4-6}$ atau $-\frac{1}{5}$ dilihat	1m
		$1 = * \left(-\frac{1}{5}\right)(6) + c$ atau setara	1m
		$y = -\frac{1}{5}x + \frac{11}{5}$ atau setara	1m
	(ii)	$* \left(-\frac{1}{5}x + \frac{11}{5}\right) = 0$	1m
		11	1m

(b)	$\sqrt{(-4-2)^2 + (3-h)^2} = 10$ atau setara	2m
	<i>Nota:</i>	
	$\sqrt{(-4-2)^2 + (3-h)^2}$ terima 1 markah	
	-5	1m

4. YIK

(a)	$y = 10$	P1	5
(b)	$k = -11$	P1	
(c)	$m = \frac{10-2}{-11-5}$ atau $m = -\frac{1}{2}$	K1	
	$10 = -\frac{1}{2}(5) + c$ atau $c = 12\frac{1}{2}$ atau $\frac{25}{2}$	K1	
	$y = -\frac{1}{2}x + \frac{25}{2}$	N1	

5. PAHANG SET 2

$\left(\frac{x+2}{2}, \frac{y+0}{2}\right) = (4, 2)$	1
$(6, 4)$	1

6. MELAKA

(a)	$(6, 4)$	1
(b)	$\left(\frac{x+6}{2}, \frac{y+4}{2}\right) = (0, 1)$ atau setara	1
	$(-6, -2)$	1

7. MELAKA

(a)(i)	$x = 3$	1
(ii)	$10 = -2(3) + c$	1
	$y = -2x + 16$	1
	$0 = -2x + 16$	1
	$x = 8$	1
(b)(i)	$\frac{12-0}{8-0}$ <u>atau</u> setara	1
	$\frac{3}{2}$	1
	$\frac{9-0}{h-7} = \frac{3}{2}$ <u>atau</u> setara	1
	$h = 10$	1

8. SABK

(a)	$\frac{1-6}{9-4}$ <u>atau</u> setara	1
	-1	1
(b)	$\frac{6-4}{4-(-2)}$ <u>atau</u> $\frac{1}{3}$	1
	$1 = \frac{1}{3}(9) + c$	1
	$y = \frac{1}{3}x - 2$	1

9. N9

$m_{OP} = m_{QR} = \frac{7}{3}$	P1
$4 = \left(\frac{7}{3}\right)(-7) + c$ ATAU $c = 20\frac{1}{3}$	K1
$y = \frac{7}{3}x + 20\frac{1}{3}$	N1

10. SELANGOR SET 1

(a)	5	1
(b)	$m = \frac{1}{2}$	1
	$-7 = \frac{1}{2}(-2) + c$ <u>atau</u> setara / <i>or equivalent</i>	1
	$y = \frac{1}{2}x - 6$ <u>atau</u> setara / <i>or equivalent</i>	1

11. SELANGOR SET 2

(a)	$m = \frac{3}{4}$ <u>atau</u> / <i>or</i> $\frac{EC}{28} = \frac{12}{16}$	1
	$0 = \frac{3}{4}(-28) + c$ <u>atau</u> / <i>or</i> $EC = 21$	1
	$y = \frac{3}{4}x + 21$	1
(b)	9	1

12. TERENGGANU MPP3

(a)	$0 = -2(5) + c$ <u>atau</u> $c = 10$	W1
	$y = -2x + 10$	V1
(b)	$\frac{0 - (-4)}{5 - 3}$	W1
	2	V1

13. MUAR JOHOR

$m = -\frac{3}{2}$ <u>atau</u> setara	P1
$-6 = -\frac{3}{2}(1) + c$ <u>atau</u> setara	K1
$y = -\frac{3}{2}x - \frac{9}{2}$ <u>atau</u> setara	N1

14. PPT YIK

$m = -2$	K1
$y = -2x + 16$	K1
$-2x + 16 = 0$	K1
$x = 8$	N1

15. TERENGGANU MPP2

(a)	-3	U1
(b)	$m = -2$ $3 = (-2)(3) + c$ $y = -2x + 9$	U1 W1 V1

16. PPT KELANTAN

(a)	$2(5) - x = 6$	1
	(4,5)	1
(b)	$-2 = \frac{1}{2}(2) + c$	1
	$y = \frac{1}{2}x - 3$	1

17. PPT PAHANG

$m = -\frac{2}{5}$	1
$-4 = \left(-\frac{2}{5}\right)(5) + c$ atau $c = -2$	1
$y = -\frac{2}{5}x - 2$ atau setara	1

18. PPT KEDAH

(a)	$\frac{2-h}{-2-(-10)} = \frac{1}{2}$ <u>atau</u> setara	1m	
	-2	1m	
(b)	(i)	$\frac{x}{5} + \frac{y}{15} = 1$	1m
	(ii)	$3x + 0 = 15$	1m
		5	1m
	(iii)	$m = -3$	1m
		$2 = (-3)(-2) + c$ <u>atau</u> setara	1m
		$y = -3x - 4$ <u>atau</u> setara	1m