

NAMA : _____ TINGKATAN : _____

MODUL PENINGKATAN PRESTASI MURID
TINGKATAN 5
TAHUN 2025

MATEMATIK
KERTAS 2
2 Jam 30 Minit

JANGAN BUKA MODUL INI SEHINGGA DIBERITAHU

- 1. Tulis **nama** dan **kelas** anda ruang yang disediakan.
- 2. Modul ini mengandungi **tiga** bahagian: **Bahagian A, Bahagian B dan Bahagian C.**
- 3. Jawapan hendaklah ditulis pada ruang jawapan yang disediakan di dalam modul ini.
- 4. Modul ini adalah dalam dwibahasa.
- 5. Jawapan boleh ditulis dalam Bahasa Melayu atau Bahasa Inggeris.
- 6. Rajah yang mengiringi soalan tidak dilukis mengikut skala kecuali dinyatakan.
- 7. Kerja mengira anda mesti ditunjukkan.

Bahagian	Soalan	Markah Penuh	Markah diperoleh
A	1	3	
	2	3	
	3	4	
	4	4	
	5	4	
	6	4	
	7	4	
	8	4	
	9	5	
	10	5	
B	11	9	
	12	9	
	13	10	
	14	9	
	15	8	
C	16	15	
	17	15	
Jumlah			

Modul ini mengandungi 39 halaman bercetak dan 1 halaman tidak bercetak

NOMBOR DAN OPERASI NUMBER AND OPERATIONS

- 1 $a^m \times a^n = a^{m+n}$
- 2 $a^m \div a^n = a^{m-n}$
- 3 $(a^m)^n = a^{mn}$
- 4 $a^{\frac{1}{n}} = \sqrt[n]{a}$
- 5 $a^{\frac{m}{n}} = (a^m)^{\frac{1}{n}} = (a^{\frac{1}{n}})^m$
- 6 $a^{\frac{m}{n}} = \sqrt[n]{a^m} = (\sqrt[n]{a})^m$
- 7 Faedah mudah / Simple interest,
 $I = Prt$
- 8 Nilai matang / Maturity value,
 $MV = P \left(1 + \frac{r}{n}\right)^{nt}$
- 9 Jumlah bayaran balik / Total repayment, $A = P + Prt$
- 10 Premium = $\frac{\text{Nilai muka polisi}}{\text{RMx}} \times (\text{Kadar premium per RMx})$

$$\text{Premium} = \frac{\text{Face value of policy}}{\text{RMx}} \times (\text{Premium rate per RMx})$$
- 11 Jumlah insurans yang harus dibeli = $\left(\frac{\text{Peratusan}}{\text{ko-insurans}} \right) \times \left(\frac{\text{Nilai boleh}}{\text{insurans harta}} \right)$

$$\text{Amount of required insurance} = \left(\frac{\text{Percentage of}}{\text{co-insurance}} \right) \times \left(\frac{\text{Insurable value}}{\text{of property}} \right)$$

PERKAITAN DAN ALGEBRA RELATIONSHIP AND ALGEBRA

- 1 Jarak / Distance
$$= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$
- 2 Titik Tengah / midpoint
$$(x, y) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$
- 3 Laju Purata = $\frac{\text{Jumlah jarak}}{\text{Jumlah masa}}$

$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}}$$
- 4 $m = \frac{y_2 - y_1}{x_2 - x_1}$
- 5 $A^{-1} = \frac{1}{ad - bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$
- 6 $m = -\frac{\text{pintasan-y}}{\text{pintasan-x}}$

$$m = -\frac{\text{y-intercept}}{\text{x-intercept}}$$

SUKATAN DAN GEOMETRI
MEASUREMENT AND GEOMETRY

- 1 Teorem Pythagoras / *Pythagoras Theorem* $c^2 = a^2 + b^2$
- 2 Hasil tambah sudut pedalaman poligon / *Sum of interior angles of a polygon*
 $= (n - 2) \times 180^\circ$
- 3 Lilitan bulatan $= \pi d = 2\pi r$
Circumference of circle $= \pi d = 2\pi r$
- 4 Luas bulatan $= \pi r^2$
Area of circle $= \pi r^2$
- 5
$$\frac{\text{Panjang lengkok}}{2\pi r} = \frac{\theta}{360^\circ}$$

$$\frac{\text{Arc length}}{2\pi r} = \frac{\theta}{360^\circ}$$
- 6
$$\frac{\text{Luas sektor}}{\pi r^2} = \frac{\theta}{360^\circ}$$

$$\frac{\text{Area of sector}}{\pi r^2} = \frac{\theta}{360^\circ}$$
- 7 Luas layang $= \frac{1}{2} \times \text{hasil darab panjang dua pepenjuru}$
Area of kite $= \frac{1}{2} \times \text{product of the length of two diagonals}$
- 8 Luas trapezium $= \frac{1}{2} \times \text{hasil tambah dua sisi selari} \times \text{tinggi}$
Area of trapezium $= \frac{1}{2} \times \text{sum of parallel sides} \times \text{height}$
- 9 Luas permukaan silinder $= 2\pi r^2 + 2\pi rh$
Surface area of cylinder $= 2\pi r^2 + 2\pi rh$
- 10 Luas permukaan kon $= \pi r^2 + \pi rs$
Surface area of cone $= \pi r^2 + \pi rs$
- 11 Luas permukaan sfera $= 4\pi r^2$
Surface area of sphere $= 4\pi r^2$
- 12 Isi padu prisma $= \text{luas keratan rentas} \times \text{tinggi}$
Volume of prism $= \text{cross sectional area} \times \text{height}$
- 13 Isi padu silinder $= \pi r^2 h$
Volume of cylinder $= \pi r^2 h$

14 Isi padu kon = $\frac{1}{3} \pi j^2 t$

Volume of cone = $\frac{1}{3} \pi r^2 h$

15 Isi padu sfera = $\frac{4}{3} \pi j^3$

Volume of sphere = $\frac{4}{3} \pi r^3$

16 Isi padu piramid = $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$

Volume of pyramid = $\frac{1}{3} \times \text{base area} \times \text{height}$

17 Faktor skala, $k = \frac{PA'}{PA}$

Scale factor, $k = \frac{PA'}{PA}$

18 Luas imej = $k^2 \times \text{luas objek}$

Area of image = $k^2 \times \text{area of object}$

STATISTIK DAN KEBARANGKALIAN STATISTICS AND PROBABILITY

1 Min / Mean, $\bar{x} = \frac{\sum x}{N}$

2 Min / Mean, $\bar{x} = \frac{\sum fx}{\sum f}$

3 Varians / Variance, $\sigma^2 = \frac{\sum x^2}{N} - \bar{x}^2 = \frac{\sum (x - \bar{x})^2}{N}$

4 Varians / Variance, $\sigma^2 = \frac{\sum fx^2}{\sum f} - \bar{x}^2 = \frac{\sum f(x - \bar{x})^2}{\sum f}$

5 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\sum x^2}{N} - \bar{x}^2} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$

6 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2} = \sqrt{\frac{\sum f(x - \bar{x})^2}{\sum f}}$

7 $P(A) = \frac{n(A)}{n(S)}$

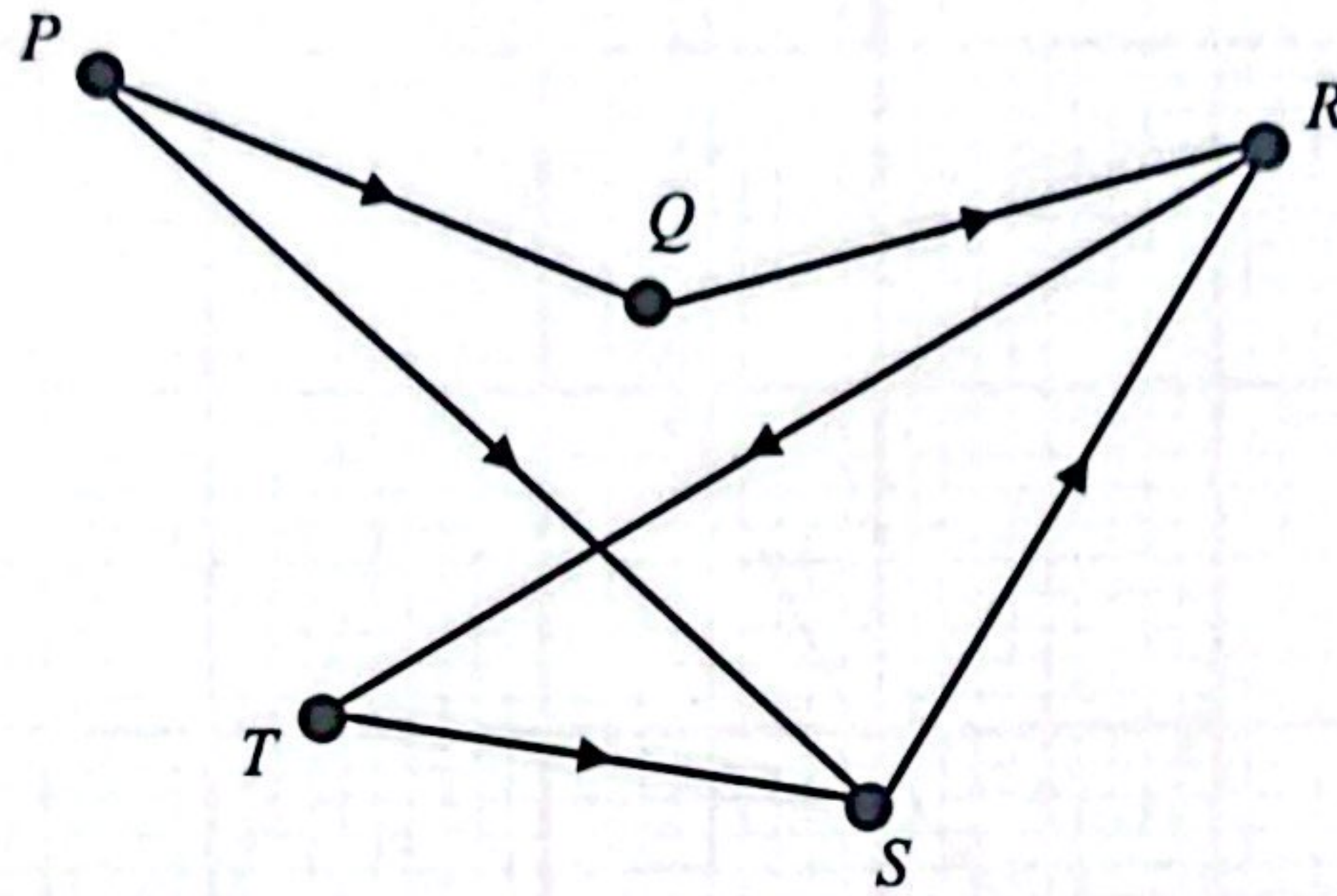
8 $P(A') = 1 - P(A)$

Bahagian A / Section A
[40 markah / marks]

Jawab semua soalan dalam bahagian ini.
Answer all questions in this section.

1 Rajah 1 menunjukkan suatu graf terarah.

Diagram 1 shows a directed graph.



Rajah / Diagram 1

(a) Tentukan bilangan bucu.

Determine the number of vertices.

(b) Senaraikan set tepi.

List the set of edges.

[3 markah / marks]

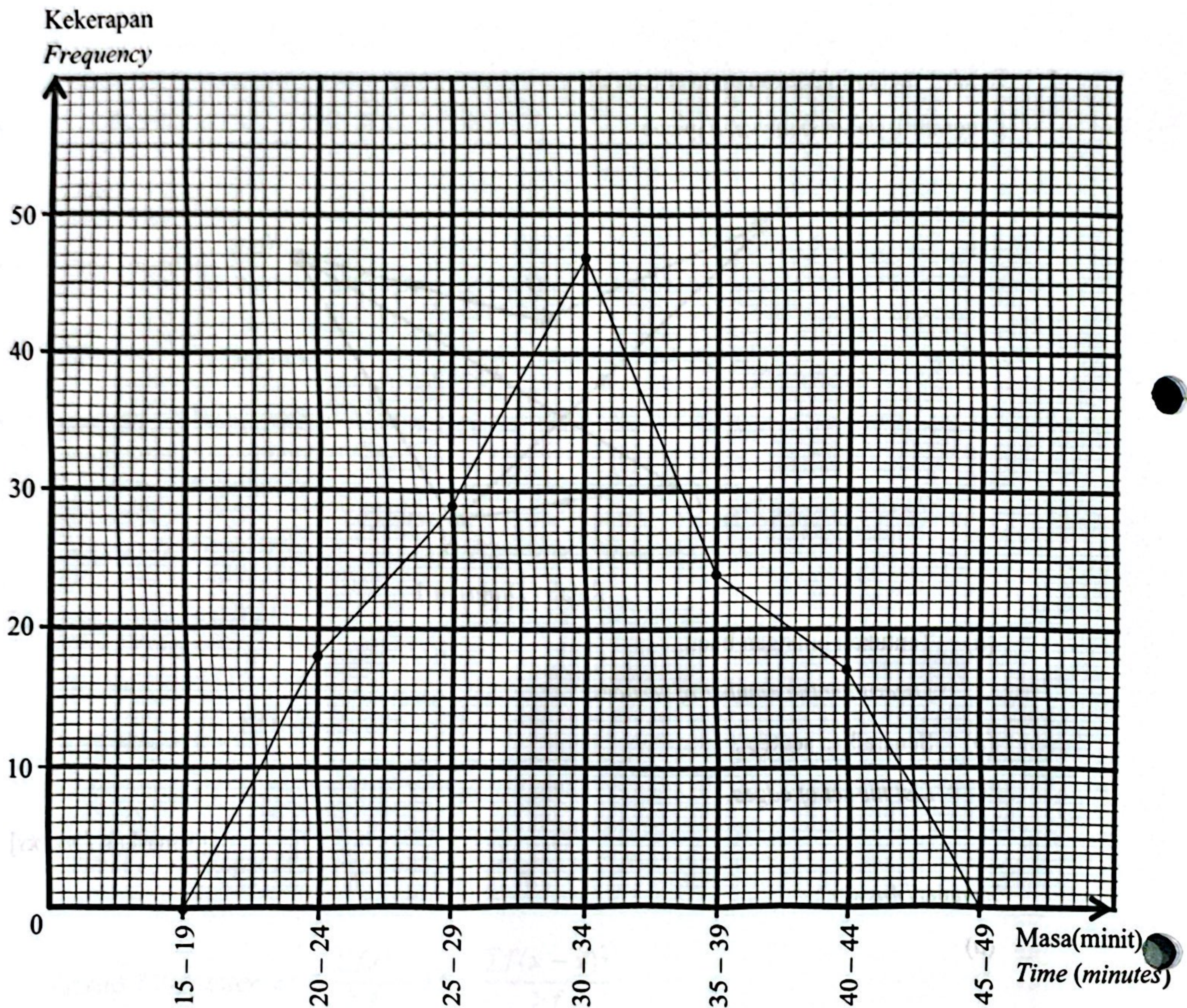
Jawapan/Answer :

(a)

(b)

- 2 Rajah 2 menunjukkan masa yang diambil oleh sekumpulan murid untuk menjawab soalan objektif dalam suatu ujian Matematik.

Diagram 2 shows the time taken by a group of pupils to answer objective questions in a Mathematics test.



Rajah / Diagram 2

- (a) Tentukan bilangan murid yang menjawab dalam tempoh 25 minit hingga 29 minit.

Determine the number of pupils who answered within 25 minutes to 29 minutes.

- (b) Hitung jumlah murid yang menduduki ujian tersebut.

Calculate the number of pupils who sat the test.

[3 markah / marks]

Jawapan / Answer :

(a)

(b)

- 3 Izzah mengayuh basikal sejauh 12 km dengan kelajuan $(x - 3)$ kmj⁻¹ dalam tempoh $(x - 2)$ jam.

Izzah cycled 12 km at a speed of $(x - 3)$ kmh⁻¹ in $(x - 2)$ hours.

- (a) Tulis satu persamaan kuadratik dalam sebutan x . Berikan jawapan anda dalam bentuk $ax^2 + bx + c = 0$.

Write a quadratic equation in terms of x . Give your answer in the form of $ax^2 + bx + c = 0$.

- (b) Seterusnya, dengan menggunakan kaedah pemfaktoran, hitung nilai x .

Hence, by using the factorization method, calculate the value of x .

[4 markah / marks]

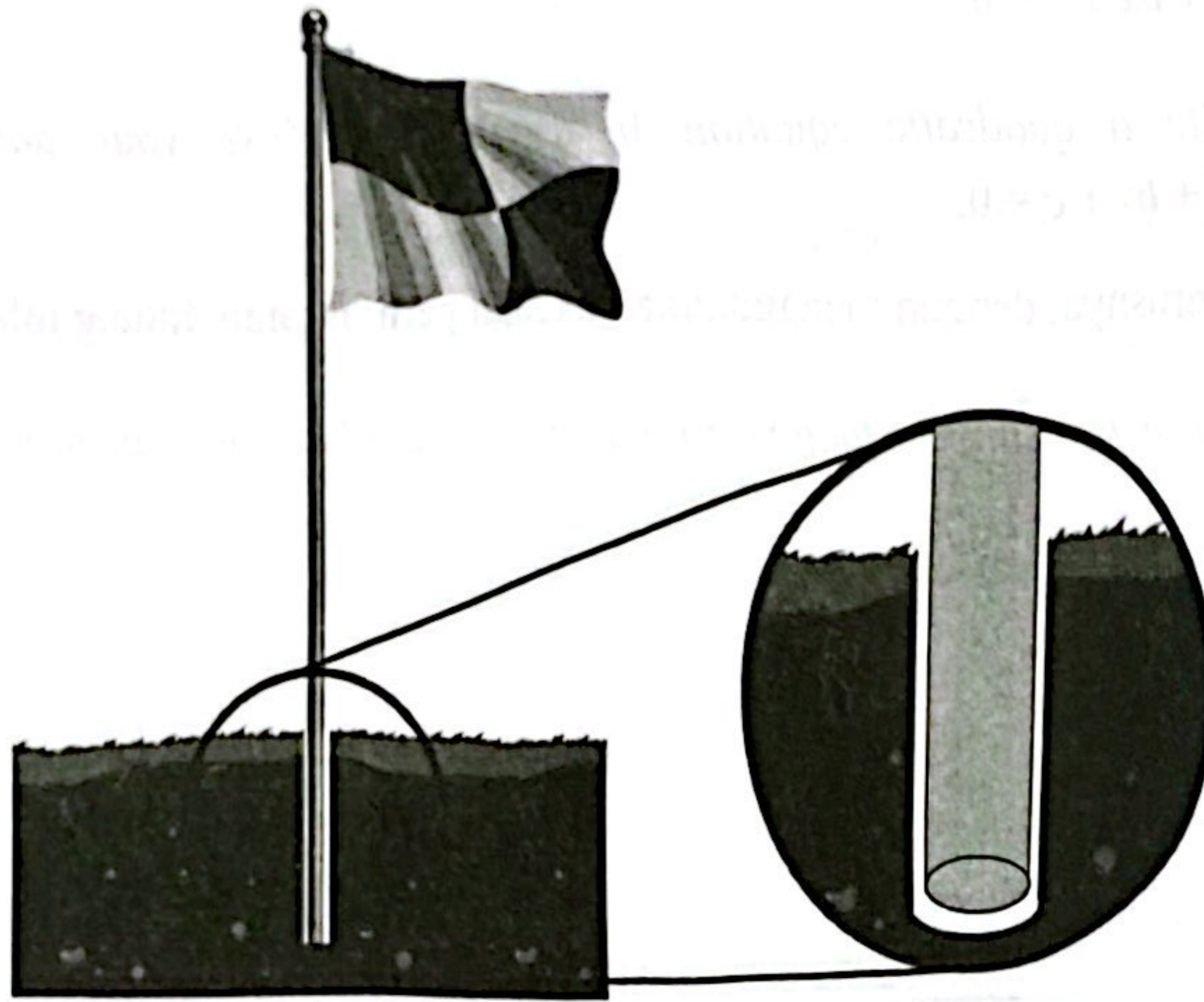
Jawapan / Answer :

(a)

(b)

- 4 Rajah 4 menunjukkan sebatang tiang berbentuk silinder yang digunakan untuk memasang bendera semasa hari sukan sekolah.

Diagram 4 shows a cylindrical pole used to hang a flag during the school sports day.



Rajah / Diagram 4

Diberi tinggi dan diameter tiang itu masing-masing ialah 5 meter dan 5 cm.

Jika $\frac{1}{7}$ daripada tiang itu dimasukkan ke dalam tanah, hitung

Given that the height and the diameter of the pole are 5 meters and 5 cm respectively.

If $\frac{1}{7}$ of the pole is inserted into the ground, calculate

- luas tapak tiang tersebut, dalam cm^2 .
the area of the base of the pole, in cm^2 .
- isipadu tiang yang berada di dalam tanah, dalam cm^3 .
the volume of the pole that is in the ground, in cm^3 .

[4 markah / marks]

Jawapan / Answer :

(a)

(b)

- 5 (a) Gabungkan dua pernyataan yang berikut untuk membentuk satu pernyataan majmuk yang benar.

Combine the following two statements to form a true compound statement.

Pernyataan 1	:	3 ialah gandaan 9
Statement 1	:	3 is the multiples of 9
Pernyataan 2	:	$(3^2)^2 = 81$
Statement 2	:	$(3^2)^2 = 81$

[1 markah / mark]

- (b) Tulis satu kesimpulan bagi melengkapkan hujah berikut.

Write a conclusion to complete the following argument.

Premis 1 : Semua murid Tingkatan 5 dijemput hadir ke seminar pendidikan.

Premise 1 : All Form 5 pupils are invited to attend the educational seminar.

Premis 2 : Qilah ialah seorang murid Tingkatan 5.

Premise 2 : Qilah is a Form 5 pupil.

Kesimpulan :

Conclusion :

[1 markah / mark]

- (c) Bentuk satu kesimpulan induktif bagi urutan nombor 7, 13, 23, 37, ... mengikut pola yang berikut.

Construct one inductive conclusion for the sequence numbers of 7, 13, 23, 37, ... according to the pattern as follows.

$$\begin{aligned} 7 &= 2(1) + 5 \\ 13 &= 2(4) + 5 \\ 23 &= 2(9) + 5 \\ 37 &= 2(16) + 5 \\ &= \end{aligned}$$

[2 markah / marks]

Jawapan / Answer :

(a)

(b) Kesimpulan:

Conclusion:

(c)

6 Jadual 6 menunjukkan pelan kewangan Encik Harith pada suatu bulan tertentu.

Table 6 shows Encik Harith's financial plan on a certain month.

Pendapatan dan Perbelanjaan <i>Income and Expenditure</i>	Amaun (RM) <i>Amount (RM)</i>
Pendapatan aktif <i>Active income</i>	3 500
Pendapatan pasif <i>Passive income</i>	200
Simpanan tetap bulanan <i>Fixed monthly savings</i>	300
Dana kecemasan <i>Emergency funds</i>	150
Baki pendapatan <i>Income balance</i>	Q
Perbelanjaan tetap bulanan <i>Monthly fixed expenses</i>	
Ansuran kereta <i>Car installment</i>	500
Insurans <i>Insurance</i>	200
Pembiayaan rumah <i>Housing loan</i>	600
Perbelanjaan tidak tetap <i>Monthly variable expenses</i>	
Barangan dapur <i>Groceries</i>	800
Petrol <i>Fuel</i>	250
Utiliti rumah <i>Home utilities</i>	500
Pemberian kepada ibu bapa <i>Giving to parents</i>	300
Bil telefon <i>Telephone bills</i>	150

Jadual / Table 6

(a) Cari nilai Q.

Find the value of Q.

[1 markah / mark]

(b) Hitung aliran tunai Encik Harith. Adakah dia mengurus kewangan dengan cekap? Beri justifikasi anda.

Calculate Encik Harith's cash flow. Does he manage his finances efficiently? Justify your answer.

[3 markah / marks]

Jawapan / Answer :

(a)

(b)



- 7 Dalam soal selidik yang dijalankan oleh Cikgu Juraidi, seramai 140 orang murid tingkatan lima SMK Bestari diberi peluang untuk merasa burger keluaran Syarikat Ashraf. Terdapat dua jenis burger yang ditawarkan iaitu burger ayam dan burger daging. Seramai 65 orang murid memilih burger ayam, 70 orang murid memilih burger daging manakala 50 orang murid memilih kedua-duanya.

In a survey conducted by Cikgu Juraidi, a total of 140 form five pupils from SMK Bestari were given the opportunity to taste burgers produced by Syarikat Ashraf. There were two types of burgers on offer, which are chicken burgers and beef burgers. 65 pupils choose the chicken burger, 70 pupils choose the beef burger, while 50 pupils choose both.

Hitung,

Calculate,

- (a) jumlah murid yang memilih satu jenis burger sahaja.

the number of pupils who choose one type of burger only.

[2 markah / marks]

- (b) jumlah murid yang tidak makan burger.

the number of pupils who did not eat burgers.

[2 markah / marks]

Jawapan / Answer :

(a)

(b)

8 Dua orang murid dipilih secara rawak dari lapan orang murid perempuan (P) dan seorang murid lelaki (L) dari kelas Avicenna.

Two pupils were randomly selected from eight female pupils (P) and one male pupil (L) from Avicenna's class.

(a) Wakilkan situasi di atas dengan melengkapkan gambar rajah pokok di ruang jawapan di bawah.

Represent the above situation by completing the tree diagram in the answer space below.

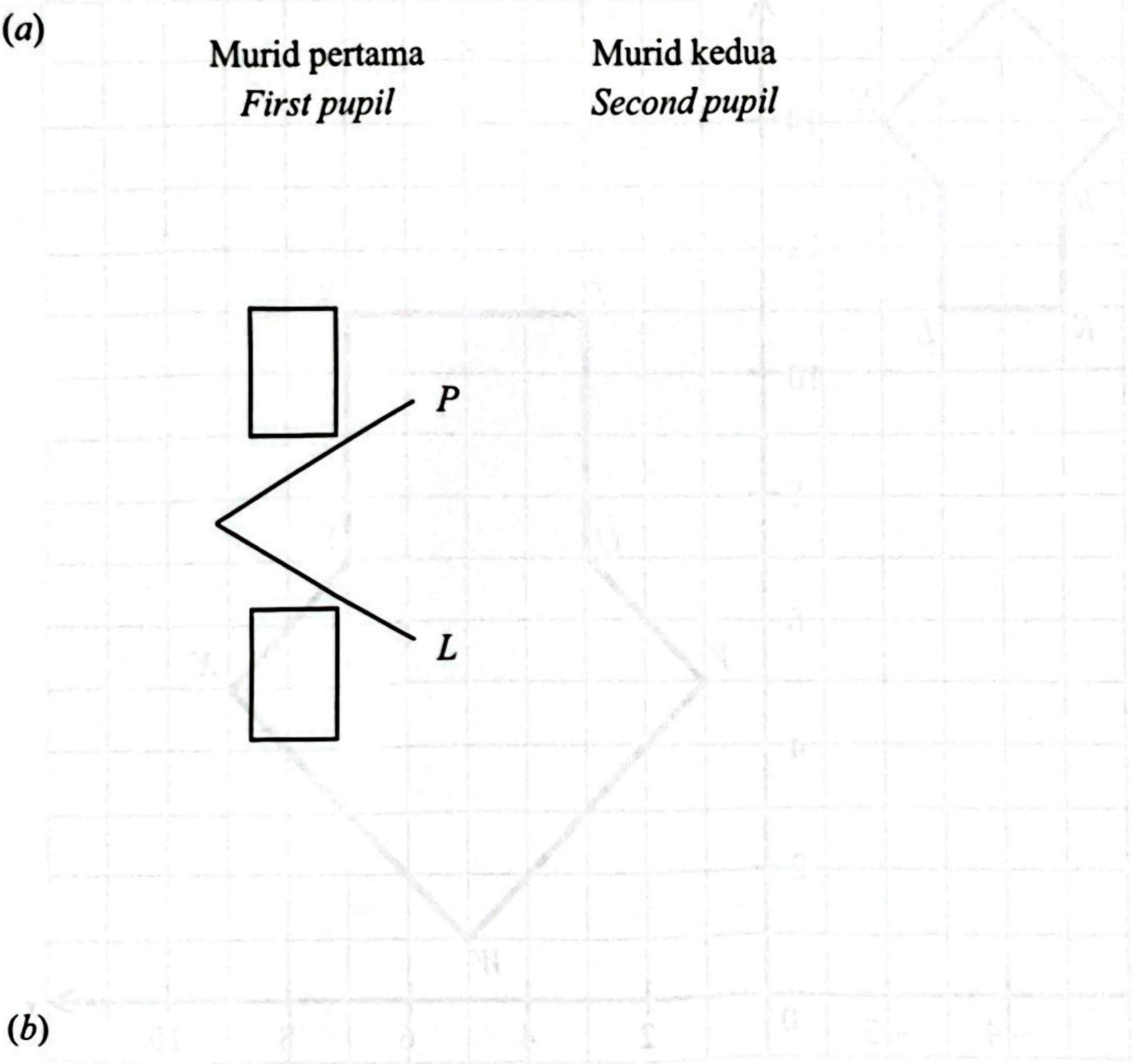
[2 markah / marks]

(b) Kemudian, hitung kebarangkalian murid kedua ialah lelaki.

Then, calculate the probability that the second pupil is a male.

[2 markah / marks]

Jawapan / Answer :



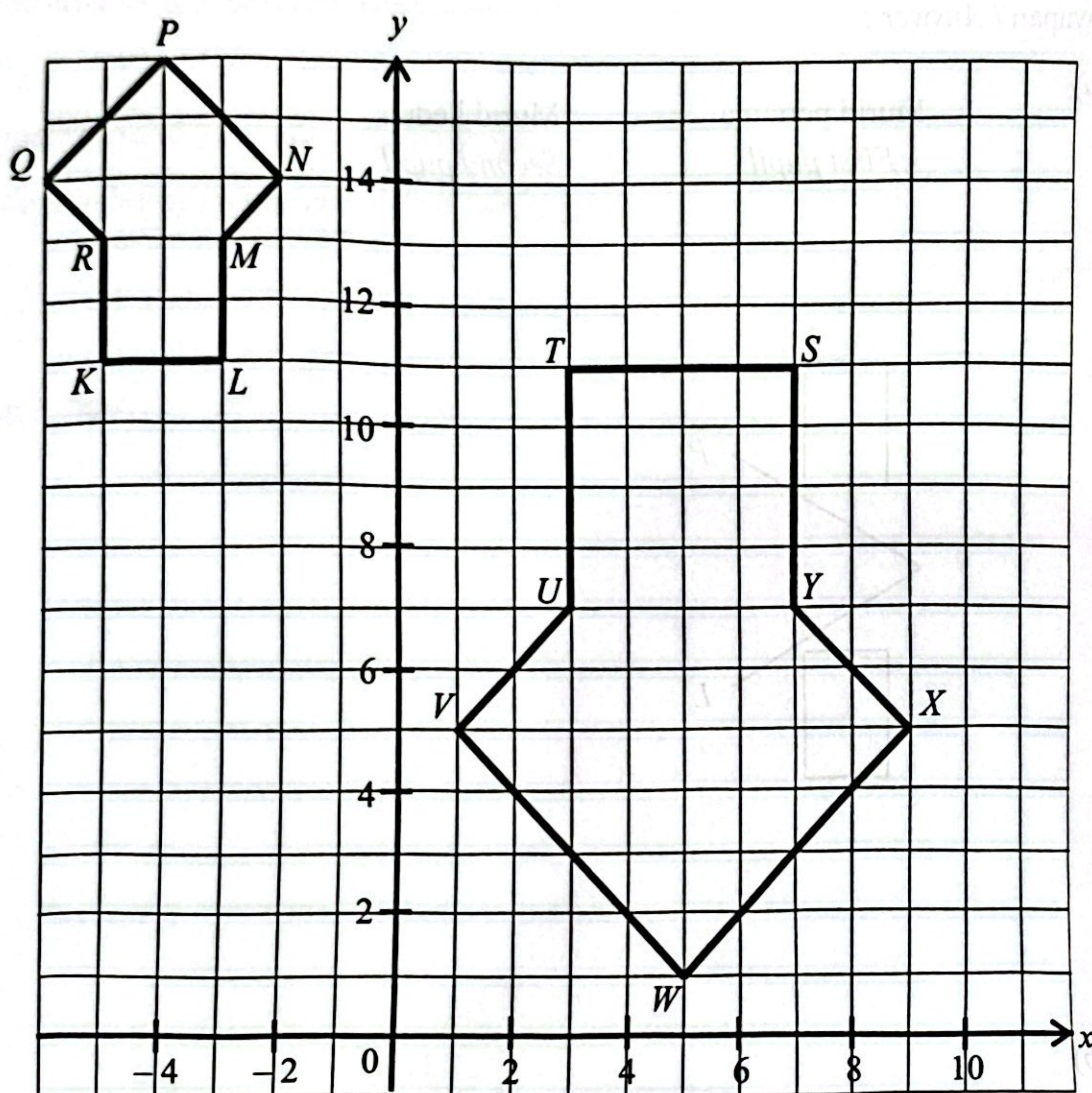
- 9 (a) Titik (3, 8) ialah imej bagi titik J di bawah gabungan transformasi TP dengan keadaan transformasi T ialah translasi $\begin{pmatrix} -4 \\ 5 \end{pmatrix}$ dan transformasi P ialah pantulan pada garis $y = 6$. Nyatakan koordinat bagi titik J .

Point (3, 8) is the image of point J under a combined transformation TP such that transformation T is a translation $\begin{pmatrix} -4 \\ 5 \end{pmatrix}$ and transformation P is a reflection on the line $y = 6$. State the coordinate of point J .

[2 markah / marks]

- (b) Rajah 9 menunjukkan dua buah poligon $KLMNPQR$ dan $STUVWXY$ pada suatu satah Cartes.

Diagram 9 shows two polygons $KLMNPQR$ and $STUVWXY$ on a Cartesian plane.



Rajah / Diagram 9

Poligon $STUVWXY$ ialah imej kepada poligon $KLMNPQ$ di bawah suatu transformasi tunggal. Huraikan selengkapnya transformasi itu.

Polygon $STUVWXY$ is the image of polygon $KLMNPQ$ under a single transformation. Describe fully, the transformation.

[3 markah / marks]

Jawapan / Answer :

(a)

Item	Part A (RM)	Part B (RM)
1. 100 units of goods	100.00	100.00
2. 50 units of goods	50.00	50.00
3. 25 units of goods	25.00	25.00
4. 12.5 units of goods	12.50	12.50
5. 6.25 units of goods	6.25	6.25
6. 3.125 units of goods	3.125	3.125
7. 1.5625 units of goods	1.5625	1.5625
8. 0.78125 units of goods	0.78125	0.78125
9. 0.390625 units of goods	0.390625	0.390625
10. 0.1953125 units of goods	0.1953125	0.1953125
11. 0.09765625 units of goods	0.09765625	0.09765625
12. 0.048828125 units of goods	0.048828125	0.048828125
13. 0.0244140625 units of goods	0.0244140625	0.0244140625
14. 0.01220703125 units of goods	0.01220703125	0.01220703125
15. 0.006103515625 units of goods	0.006103515625	0.006103515625
16. 0.0030517578125 units of goods	0.0030517578125	0.0030517578125
17. 0.00152587890625 units of goods	0.00152587890625	0.00152587890625
18. 0.000762939453125 units of goods	0.000762939453125	0.000762939453125
19. 0.0003814697265625 units of goods	0.0003814697265625	0.0003814697265625
20. 0.00019073486328125 units of goods	0.00019073486328125	0.00019073486328125
21. 0.000095367431640625 units of goods	0.000095367431640625	0.000095367431640625
22. 0.0000476837158203125 units of goods	0.0000476837158203125	0.0000476837158203125
23. 0.00002384185791015625 units of goods	0.00002384185791015625	0.00002384185791015625
24. 0.000011920928955078125 units of goods	0.000011920928955078125	0.000011920928955078125
25. 0.0000059604644775390625 units of goods	0.0000059604644775390625	0.0000059604644775390625
26. 0.00000298023223876953125 units of goods	0.00000298023223876953125	0.00000298023223876953125
27. 0.000001490116119384765625 units of goods	0.000001490116119384765625	0.000001490116119384765625
28. 0.0000007450580596923828125 units of goods	0.0000007450580596923828125	0.0000007450580596923828125
29. 0.00000037252902984619140625 units of goods	0.00000037252902984619140625	0.00000037252902984619140625
30. 0.000000186264514923095703125 units of goods	0.000000186264514923095703125	0.000000186264514923095703125
31. 0.0000000931322574615478515625 units of goods	0.0000000931322574615478515625	0.0000000931322574615478515625
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33. 0.000000023283064365386962890625 units of goods	0.000000023283064365386962890625	0.000000023283064365386962890625
34. 0.0000000116415321826934814453125 units of goods	0.0000000116415321826934814453125	0.0000000116415321826934814453125
35. 0.00000000582076609134674072265625 units of goods	0.00000000582076609134674072265625	0.00000000582076609134674072265625
36. 0.000000002910383045673370361328125 units of goods	0.000000002910383045673370361328125	0.000000002910383045673370361328125
37. 0.0000000014551915228366851806640625 units of goods	0.0000000014551915228366851806640625	0.0000000014551915228366851806640625
38. 0.00000000072759576141834259033203125 units of goods	0.00000000072759576141834259033203125	0.00000000072759576141834259033203125
39. 0.000000000363797880709171295166015625 units of goods	0.000000000363797880709171295166015625	0.000000000363797880709171295166015625
40. 0.0000000001818989403545856475830078125 units of goods	0.0000000001818989403545856475830078125	0.0000000001818989403545856475830078125
41. 0.00000000009094947017729282379150390625 units of goods	0.00000000009094947017729282379150390625	0.00000000009094947017729282379150390625
42. 0.000000000045474735088646411895751953125 units of goods	0.000000000045474735088646411895751953125	0.000000000045474735088646411895751953125
43. 0.0000000000227373675443232059478759765625 units of goods	0.0000000000227373675443232059478759765625	0.0000000000227373675443232059478759765625
44. 0.00000000001136868377216160297393798828125 units of goods	0.00000000001136868377216160297393798828125	0.00000000001136868377216160297393798828125
45. 0.000000000005684341886080801486968994140625 units of goods	0.000000000005684341886080801486968994140625	0.000000000005684341886080801486968994140625
46. 0.0000000000028421709430404007434844970703125 units of goods	0.0000000000028421709430404007434844970703125	0.0000000000028421709430404007434844970703125
47. 0.00000000000142108547152020037174224853515625 units of goods	0.00000000000142108547152020037174224853515625	0.00000000000142108547152020037174224853515625
48. 0.000000000000710542735760100185871124267578125 units of goods	0.000000000000710542735760100185871124267578125	0.000000000000710542735760100185871124267578125
49. 0.0000000000003552713678800500929355621337890625 units of goods	0.0000000000003552713678800500929355621337890625	0.0000000000003552713678800500929355621337890625
50. 0.00000000000017763568394002504646778106689453125 units of goods	0.00000000000017763568394002504646778106689453125	0.00000000000017763568394002504646778106689453125
51. 0.000000000000088817841970012523233890533447265625 units of goods	0.000000000000088817841970012523233890533447265625	0.000000000000088817841970012523233890533447265625
52. 0.0000000000000444089209850062616169452667236328125 units of goods	0.0000000000000444089209850062616169452667236328125	0.0000000000000444089209850062616169452667236328125
53. 0.00000000000002220446049250313080847263336181640625 units of goods	0.00000000000002220446049250313080847263336181640625	0.00000000000002220446049250313080847263336181640625
54. 0.000000000000011102230246251565404236316680908203125 units of goods	0.000000000000011102230246251565404236316680908203125	0.000000000000011102230246251565404236316680908203125
55. 0.0000000000000055511151231257827021181583340541015625 units of goods	0.0000000000000055511151231257827021181583340541015625	0.0000000000000055511151231257827021181583340541015625
56. 0.00000000000000277555756156289135105907916702705078125 units of goods	0.00000000000000277555756156289135105907916702705078125	0.00000000000000277555756156289135105907916702705078125
57. 0.000000000000001387778780781445675529539583513525390625 units of goods	0.000000000000001387778780781445675529539583513525390625	0.000000000000001387778780781445675529539583513525390625
58. 0.0000000000000006938893903907228377647697917567626953125 units of goods	0.0000000000000006938893903907228377647697917567626953125	0.0000000000000006938893903907228377647697917567626953125
59. 0.00000000000000034694469519536141888238489587838134765625 units of goods	0.00000000000000034694469519536141888238489587838134765625	0.00000000000000034694469519536141888238489587838134765625
60. 0.000000000000000173472347597680709441192447939190673828125 units of goods	0.000000000000000173472347597680709441192447939190673828125	0.000000000000000173472347597680709441192447939190673828125
61. 0.0000000000000000867361737988403547205962239695953369140625 units of goods	0.0000000000000000867361737988403547205962239695953369140625	0.0000000000000000867361737988403547205962239695953369140625
62. 0.00000000000000004336808689942017736029811198479766845703125 units of goods	0.00000000000000004336808689942017736029811198479766845703125	0.00000000000000004336808689942017736029811198479766845703125
63. 0.000000000000000021684043449710088680149055992398834228515625 units of goods	0.000000000000000021684043449710088680149055992398834228515625	0.000000000000000021684043449710088680149055992398834228515625
64. 0.00000000000000001084202172485504434007452799619941711428125 units of goods	0.00000000000000001084202172485504434007452799619941711428125	0.00000000000000001084202172485504434007452799619941711428125
65. 0.000000000000000005421010862427522170037263998099708557140625 units of goods	0.000000000000000005421010862427522170037263998099708557140625	0.000000000000000005421010862427522170037263998099708557140625
66. 0.0000000000000000027105054312137610850186319990498542785703125 units of goods	0.0000000000000000027105054312137610850186319990498542785703125	0.0000000000000000027105054312137610850186319990498542785703125
67. 0.00000000000000000135525271560688054250931599952492713928515625 units of goods	0.00000000000000000135525271560688054250931599952492713928515625	0.00000000000000000135525271560688054250931599952492713928515625
68. 0.0000000000000000006776263578034402712546579997624635696428125 units of goods	0.0000000000000000006776263578034402712546579997624635696428125	0.0000000000000000006776263578034402712546579997624635696428125
69. 0.00000000000000000033881317890172013562732899988123178482140625 units of goods	0.00000000000000000033881317890172013562732899988123178482140625	0.00000000000000000033881317890172013562732899988123178482140625
70. 0.000000000000000000169406589450860067813664499940615892410703125 units of goods	0.000000000000000000169406589450860067813664499940615892410703125	0.000000000000000000169406589450860067813664499940615892410703125
71. 0.0000000000000000000847032947254300339068322499703079462053515625 units of goods	0.0000000000000000000847032947254300339068322499703079462053515625	0.0000000000000000000847032947254300339068322499703079462053515625
72. 0.00000000000000000004235164736271501695341612498515397310267578125 units of goods	0.00000000000000000004235164736271501695341612498515397310267578125	0.00000000000000000004235164736271501695341612498515397310267578125
73. 0.000000000000000000021175823681357508476708062492576986551337890625 units of goods	0.000000000000000000021175823681357508476708062492576986551337890625	0.000000000000000000021175823681357508476708062492576986551337890625
74. 0.0000000000000000000105879118406787542383540312462884932756689453125 units of goods	0.0000000000000000000105879118406787542383540312462884932756689453125	0.0000000000000000000105879118406787542383540312462884932756689453125
75. 0.00000000000000000000529395592033937711917701562314424663783447265625 units of goods	0.00000000000000000000529395592033937711917701562314424663783447265625	0.00000000000000000000529395592033937711917701562314424663783447265625
76. 0.000000000000000000002646977960169688559588507811722123318917236328125 units of goods	0.000000000000000000002646977960169688559588507811722123318917236328125	0.000000000000000000002646977960169688559588507811722123318917236328125
77. 0.0000000000000000000013234889800848442779792539058610616594586181640625 units of goods	0.0000000000000000000013234889800848442779792539058610616594586181640625	0.0000000000000000000013234889800848442779792539058610616594586181640625
78. 0.00000000000000000000066174449004242213898962695293053082972930908203125 units of goods	0.00000000000000000000066174449004242213898962695293053082972930908203125	0.00000000000000000000066174449004242213898962695293053082972930908203125
79. 0.000000000000000000000330872245021211069494813476465265414864654541015625 units of goods	0.000000000000000000000330872245021211069494813476465265414864654541015625	0.000000000000000000000330872245021211069494813476465265414864654541015625
80. 0.0000000000000000000001654361225106055347474067382326327074323272705078125 units of goods	0.0000000000000000000001654361225106055347474067382326327074323272705078125	0.0000000000000000000001654361225106055347474067382326327074323272705078125
81. 0.00000000000000000000008271806125530276737370336911631635371616363525390625 units of goods	0.00000000000000000000008271806125530276737370336911631635371616363525390625	0.00000000000000000000008271806125530276737370336911631635371616363525390625
82. 0.000000000000000000000041359030627651383686851684558158176858081817626953125 units of goods	0.000000000000000000000041359030627651383686851684558158176858081817626953125	0.000000000000000000000041359030627651383686851684558158176858081817626953125
83. 0.0000000000000000000000206795153138256918434258422790790882900409088134765625 units of goods	0.0000000000000000000000206795153138256918434258422790790882900409088134765625	0.0000000000000000000000206795153138256918434258422790790882900409088134765625
84. 0		

- 10 (a) Pendapatan tahunan Encik Azim dan isteri masing-masing ialah RM48 450 dan RM76 050. Jadual 10.1 menunjukkan maklumat berkaitan pelepasan dan pengecualian cukai Encik Azim dan isteri pada tahun 2024.

The annual income of Encik Azim and his wife is RM48 450 and RM76 050 respectively. Table 10.1 shows information related to tax relief and tax exemption for Encik Azim and his wife in 2024.

Perkara Item	Encik Azim (RM)	Isteri (RM) Wife (RM)
Pelepasan cukai Tax relief	15 550	17 210
Derma pada Perpustakaan Digital Kedah Donation to Kedah Digital Library	270	—

Jadual / Table 10.1

Hitung pendapatan bercukai Encik Azim pada tahun 2024. Seterusnya, adakah Encik Azim mendapat rebat cukai? Berikan alasan anda.

Calculate Encik Azim's chargeable income in 2024. Hence, does Encik Azim get a tax rebate? Give your reason.

[3 markah / marks]

Jawapan / Answer :

(a)

[3 markah / marks]

- 10 (b) Pada tahun 2024, pendapatan bercukai Encik Azim dan isteri ialah RM91 470. Jadual 10.2 menunjukkan sebahagian daripada Kadar Cukai Individu untuk Tahun Taksiran 2024.

In the year 2024, Encik Azim and his wife chargeable income was RM91 470. Table 10.2 shows some of the Individual Income Tax Rates for the Assessment Year of 2024.

Banjaran Pendapatan Bercukai Chargeable Income (RM)	Pengiraan Calculation (RM)	Kadar Rate (%)	Cukai Tax (RM)
70 001 – 100 000	70 000 pertama / On the first 70 000		3 700
	30 000 berikutnya / Next 30 000	19	5 700
100 001 – 400 000	100 000 pertama / On the first 100 000		9 400
	300 000 berikutnya / Next 300 000	25	75 000

Jadual / Table 10.2

Pada tahun tersebut, Encik Azim dan isterinya masing-masing membayar zakat sebanyak RM1 800 dan RM2 760 kepada Majlis Agama Negeri. Hitung jumlah cukai pendapatan yang perlu dibayar oleh Encik Azim dan isterinya menggunakan taksiran cukai bersama.

In that year, Encik Azim and his wife paid zakat of RM1 800 and RM2 760 respectively to the State Religious Council. Calculate the total income tax to be paid by Encik Azim and his wife by using joint tax assessment.

[2 markah / marks]

Jawapan / Answer :

(b)

Bahagian B / Section B
[45 markah / marks]

Jawab semua soalan dalam bahagian ini.
Answer all questions in this section.

- 11 (a) Diberi bahawa matriks $A = \begin{pmatrix} 2 & 4 \\ 4 & y \end{pmatrix}$. Cari nilai y , jika matriks songsang bagi A tidak wujud.

Given matrix $A = \begin{pmatrix} 2 & 4 \\ 4 & y \end{pmatrix}$. Find the value of y , if the inverse matrix of A does not exist.

[2 markah / marks]

- (b) Jadual 11 menunjukkan bilangan bungkus nasi mandy yang terjual dalam tempoh dua hari.
Table 11 shows the number of mandy rice sold in two days.

	Nasi mandy ayam (bungkus) Chicken mandy rice (pack)	Nasi mandy kambing (bungkus) Lamb mandy rice (pack)
Hari pertama First day	35	20
Hari kedua Second day	50	30

Jadual / Table 11

Amir mendapat hasil jualan pada hari pertama dan hari kedua masing-masing sebanyak RM1 025 dan RM1 495.

Menggunakan kaedah matriks, cari harga, dalam RM, sebungkus nasi mandy ayam dan nasi mandy kambing.

Amir got sale proceeds on the first day and the second day of RM1 025 and RM1 495 respectively.

Using the matrix method, find the price, in RM, a pack of chicken mandy rice and lamb mandy rice.

[5 markah / marks]

- (c) Nurul membuat tempahan 25 bungkus nasi mandy ayam dan 10 bungkus nasi mandy kambing. Hitung jumlah yang perlu dibayar dengan menggunakan pendaraban matrik.

Nurul ordered 25 packs of chicken mandy rice and 10 packs of lamb mandy rice. Calculate amount to be paid using matrix multiplication.

[2 markah / marks]

Jawapan / Answer :

11 (a)

(b)

1.0	1.0
1.1	1.1
1.2	1.2
1.3	1.3
1.4	1.4
1.5	1.5
1.6	1.6
1.7	1.7
1.8	1.8
1.9	1.9
2.0	2.0
2.1	2.1
2.2	2.2
2.3	2.3
2.4	2.4
2.5	2.5
2.6	2.6
2.7	2.7
2.8	2.8
2.9	2.9
3.0	3.0
3.1	3.1
3.2	3.2
3.3	3.3
3.4	3.4
3.5	3.5
3.6	3.6
3.7	3.7
3.8	3.8
3.9	3.9
4.0	4.0
4.1	4.1
4.2	4.2
4.3	4.3
4.4	4.4
4.5	4.5
4.6	4.6
4.7	4.7
4.8	4.8
4.9	4.9
5.0	5.0
5.1	5.1
5.2	5.2
5.3	5.3
5.4	5.4
5.5	5.5
5.6	5.6
5.7	5.7
5.8	5.8
5.9	5.9
6.0	6.0
6.1	6.1
6.2	6.2
6.3	6.3
6.4	6.4
6.5	6.5
6.6	6.6
6.7	6.7
6.8	6.8
6.9	6.9
7.0	7.0
7.1	7.1
7.2	7.2
7.3	7.3
7.4	7.4
7.5	7.5
7.6	7.6
7.7	7.7
7.8	7.8
7.9	7.9
8.0	8.0
8.1	8.1
8.2	8.2
8.3	8.3
8.4	8.4
8.5	8.5
8.6	8.6
8.7	8.7
8.8	8.8
8.9	8.9
9.0	9.0
9.1	9.1
9.2	9.2
9.3	9.3
9.4	9.4
9.5	9.5
9.6	9.6
9.7	9.7
9.8	9.8
9.9	9.9
10.0	10.0

(c)

- 12 (a) Jadual 12.1 menunjukkan kadar premium tahunan bagi setiap RM1 000 nilai muka insurans sementara boleh baharu tahunan yang ditawarkan oleh Syarikat Insurans Amanjaya. Kadar premium tersebut adalah untuk lelaki yang sihat dan tidak merokok.

Table 12.1 shows the annual premium rate schedule per RM1 000 face value of a yearly renewable term insurance offered by Syarikat Insurans Amanjaya. The premium rates are for healthy and non-smoking men.

Umur Age	Kadar (RM) Rate (RM)
38	2.36
39	2.49
40	2.66
41	2.79

Jadual / Table 12.1

Encik Malek berumur 39 tahun dan beliau sihat serta tidak merokok. Hitung premium bulanan sekiranya beliau ingin membeli polisi insurans tersebut yang bernilai RM240 000.

Encik Malek is 39 years old and is healthy also a non-smoker. Calculate the monthly premium if he wants to buy the insurance policy worth RM240 000.

[3 markah / marks]

Jawapan / Answer :

(a)

- 12 (b) (i) Jadual 12.2 menunjukkan pengkadaran premium bawah Tarif Motor bagi polisi motor yang dikeluarkan di Semenanjung Malaysia.

Table 12.2 shows the premium rates under the Motor Tariff for motor policies issued in Peninsular Malaysia.

Kapasiti enjin tidak melebihi Engine capacity not exceeding (cc)	Polisi komprehensif Comprehensive policy (RM)	Polisi pihak ketiga Third party policy (RM)
1 650	305.50	135.00
2 200	339.10	151.20
3 050	372.60	167.40

Jadual / Table 12.2

Rajah 12 menunjukkan maklumat bagi kereta Encik Malek yang berada di Kedah.

Diagram 12 shows information for Encik Malek's car, located in Kedah.

Jumlah yang ingin diinsuranskan Sum insured	: RM80 000
Kapasiti enjin Engine capacity	: 1 810 cc
NCD	: 30%

Rajah / Diagram 12

Hitung premium kasar bagi kereta Encik Malek untuk polisi komprehensif.

Calculate the gross premium for Encik Malek's car under the comprehensive policy.

[4 markah / marks]

Jawapan / Answer :

- (b) (i)

- 12 (b) (ii) Encik Malek telah membeli insurans motor untuk keretanya yang mempunyai peruntukan deduktibel sebanyak RM350. Jadual 12.3 menunjukkan kerugian yang dialami oleh Encik Malek dalam dua kemalangan kenderaan dalam tempoh insurans tersebut.

Encik Malek has purchased motor insurance for his car with a deductible provision of RM350. Table 12.3 shows the losses suffered by Encik Malek in two vehicle accidents during the insurance coverage period.

Bulan Month	Kerugian (RM) Loss (RM)
April	320
September	780

Jadual / Table 12.3

Tentukan sama ada Encik Malek boleh membuat tuntutan terhadap kerugian yang dialaminya atau tidak bagi setiap bulan tersebut.

Jika ya, nyatakan jumlah bayaran pampasan yang boleh dituntutnya.

Jika tidak, nyatakan justifikasi anda.

Determine whether Encik Malek can make a claim for the losses he suffered for each month.

If yes, state the amount of compensation he can claim.

If no, state your justification.

[2 markah / marks]

Jawapan / Answer :

(b) (ii) April:

September:

HALAMAN KOSONG

Diagram 1 menunjukkan graf bagi fungsi $f(x)$ yang ditakrifkan oleh $f(x) = 2x^2 - 12x + 18$.
Graf ini menunjukkan bahawa $f(x)$ mempunyai minimum pada $x = 3$ dan $f(3) = 0$.



Diagram 2 menunjukkan graf bagi fungsi $g(x)$ yang ditakrifkan oleh $g(x) = x^2 - 4x + 4$.
Graf ini menunjukkan bahawa $g(x)$ mempunyai minimum pada $x = 2$ dan $g(2) = 0$.

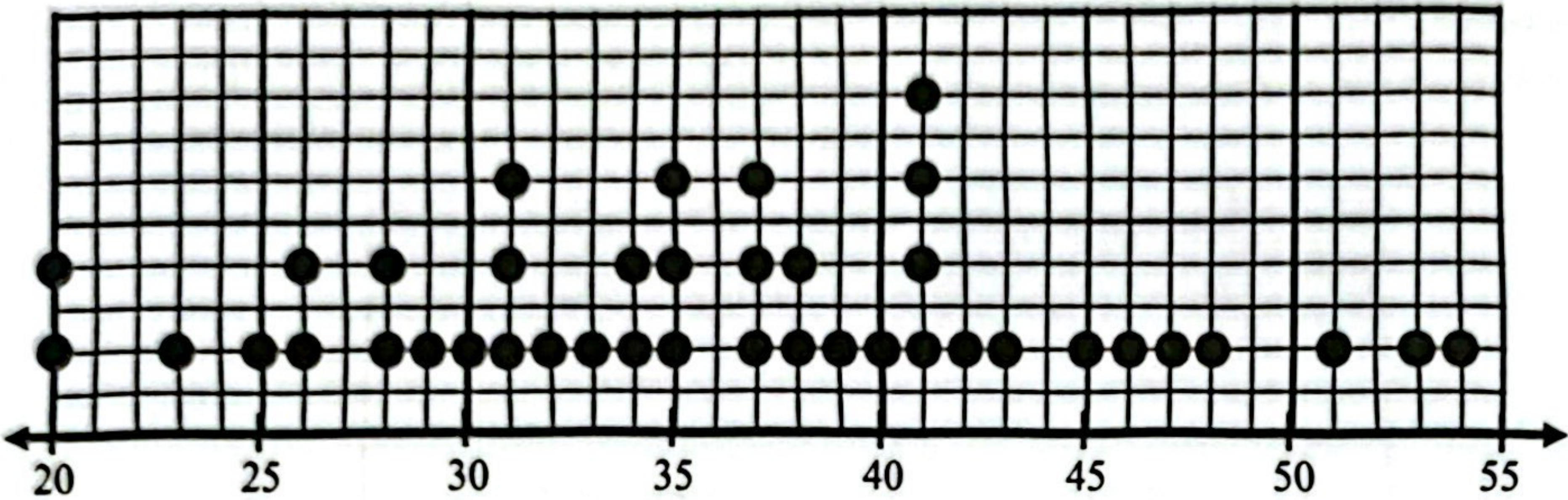
(b) Diberikan bahawa $f(x)$ dan $g(x)$ adalah dua fungsi kuadratik yang berbeza. Untuk mencari nilai x yang memenuhi $f(x) = g(x)$, kita perlu menyelesaikan persamaan $2x^2 - 12x + 18 = x^2 - 4x + 4$.
Untuk ini, kita perlu menyelesaikan persamaan $x^2 - 8x + 14 = 0$.
Dengan menggunakan kaedah ac , kita boleh mencari nilai x yang memenuhi persamaan ini. Kita boleh mencari dua nombor yang darabnya adalah 14 dan jumlahnya adalah 8. Nombor-nombor ini adalah 2 dan 6.
Oleh itu, kita boleh menulis persamaan $x^2 - 8x + 14 = 0$ sebagai $(x - 2)(x - 6) = 0$.
Ini bermaksud bahawa $x = 2$ atau $x = 6$ adalah penyelesaian kepada persamaan ini.

Diagram 3 menunjukkan graf bagi fungsi $h(x)$ yang ditakrifkan oleh $h(x) = x^2 - 6x + 9$.
Graf ini menunjukkan bahawa $h(x)$ mempunyai minimum pada $x = 3$ dan $h(3) = 0$.

x	h(x)
0	9
1	4
2	1
3	0
4	1
5	4
6	9

- 13 Rajah 13 menunjukkan plot titik mewakili markah ujian Matematik bagi 40 orang murid kelas 5 Gemilang.

Diagram 13 shows a dot plot representing the Mathematics test scores for 40 pupils in class 5 Gemilang.



Rajah / Diagram 13

- (a) Berdasarkan plot titik pada Rajah 13, lengkapkan Jadual 13.1 pada ruang jawapan.
Based on dot plot in Diagram 13, complete Table 13.1 in the answer space.

[3 markah / marks]

- (b) Untuk ceraian soalan ini, gunakan kertas graf yang disediakan di halaman 25.
For this part of the question, use the graph paper provided on page 25.

Dengan menggunakan skala 2 cm kepada 5 markah pada paksi mengufuk dan 2 cm kepada seorang murid pada paksi mencancang, lukiskan satu histogram bagi data itu.
By using a scale of 2 cm to 5 marks on the horizontal axis and 2 cm to a pupil on the vertical axis, draw a histogram for the data.

[4 markah / marks]

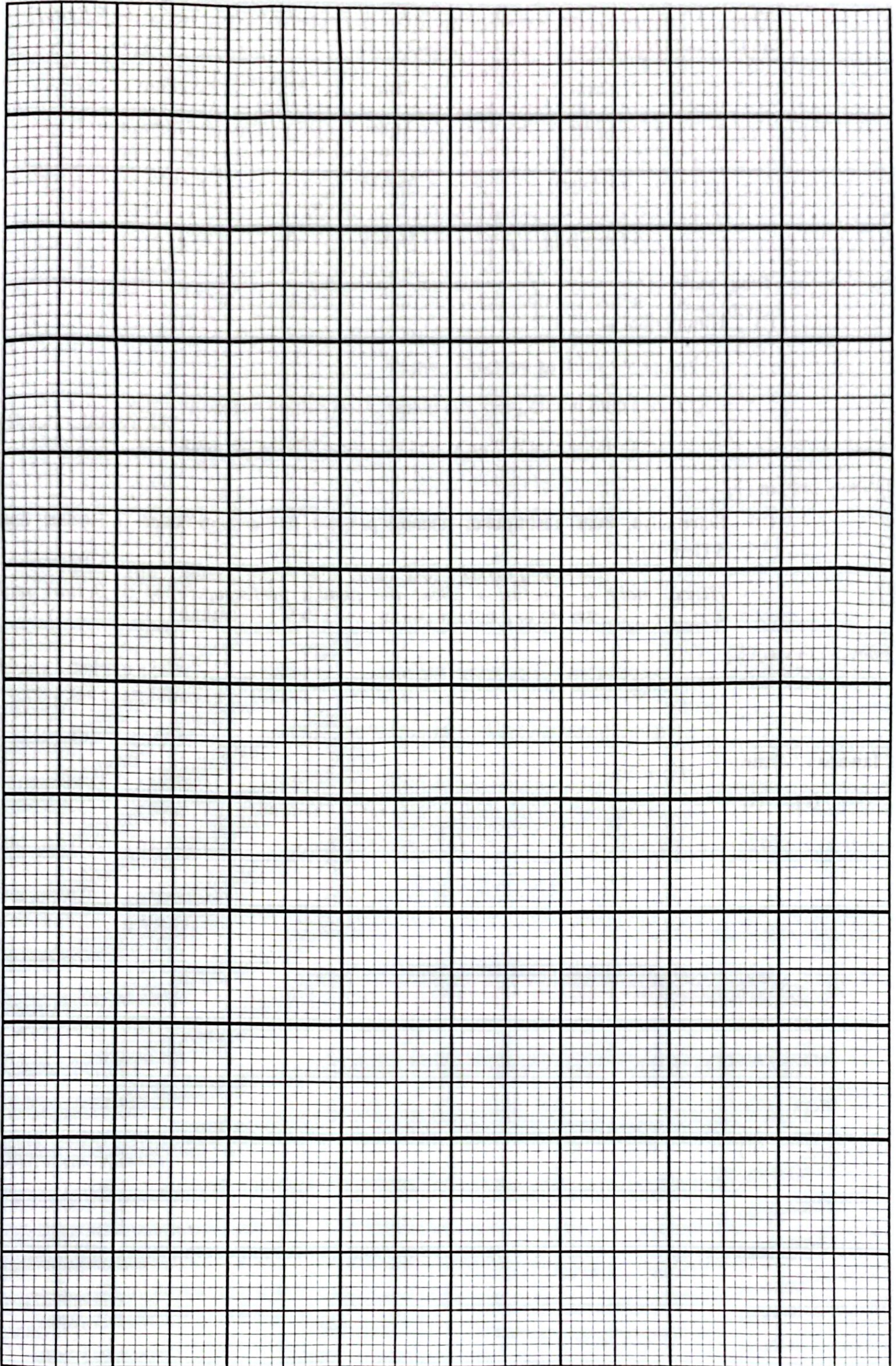
Jawapan/ Answer :

(a)

Markah Marks	Titik Tengah Midpoint	Kekerapan Frequency
20 – 24	22	3
25 – 29		

Jadual / Table 13.1

Graf untuk Soalan 13(b)
Graph for Question 13(b)



- 13 (c) Jadual 13.2 menunjukkan maklumat tentang min dan sisihan piawai bagi kelas 5 Bestari dan 5 Gemilang untuk ujian Matematik itu.

Table 13.2 shows information about the mean and standard deviation for the 5 Bestari and 5 Gemilang classes for the Mathematics test.

Kelas Class	Min Mean	Sisihan Piawai Standard Deviation
5 Bestari	36.375	8.401
5 Gemilang	36.375	x

Jadual / Table 13.2

- (i) Hitung nilai x .
Calculate the value of x .

[2 markah / marks]

- (ii) Seterusnya, buat kesimpulan tentang prestasi murid bagi kelas 5 Bestari dan 5 Gemilang.
Hence, make a conclusion about the pupil's performance of 5 Bestari and 5 Gemilang.

[1 markah / mark]

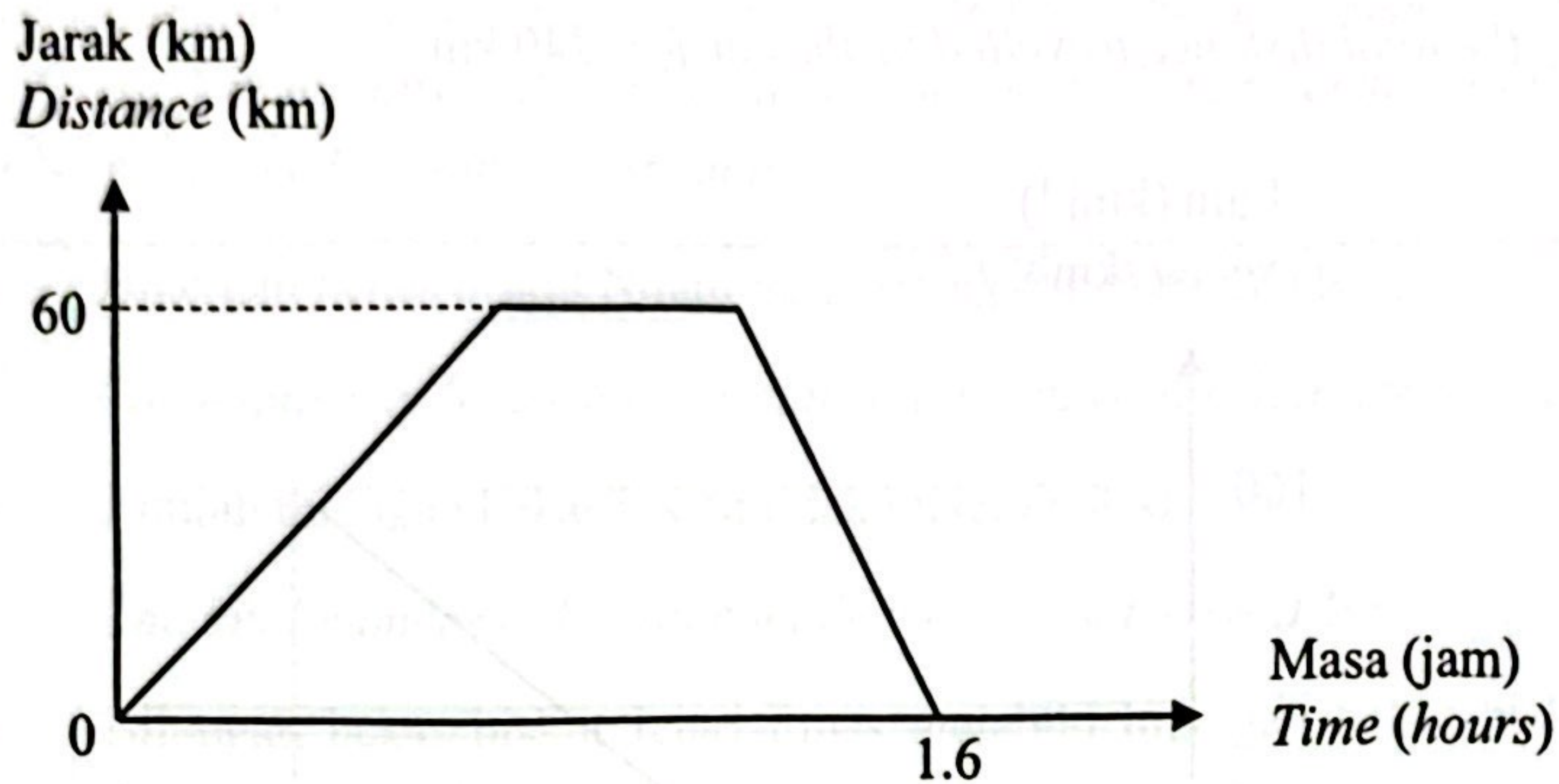
Jawapan / Answer :

(c) (i)

(ii)

- 14 Rajah 14.1 menunjukkan graf jarak-masa bagi kereta Q dalam tempoh masa 1.6 jam.

Diagram 14.1 shows the distance-time graph of a car Q for a period of 1.6 hours.



Rajah / Diagram 14.1

- (a) (i) Nyatakan jumlah jarak, dalam km, yang dilalui oleh kereta Q .

State the total distance, in km, travelled by the car Q .

[1 markah / mark]

- (ii) Hitung purata laju, dalam kmj^{-1} , kereta Q itu.

Calculate the average speed, in kmh^{-1} , of the car Q .

[2 markah / marks]

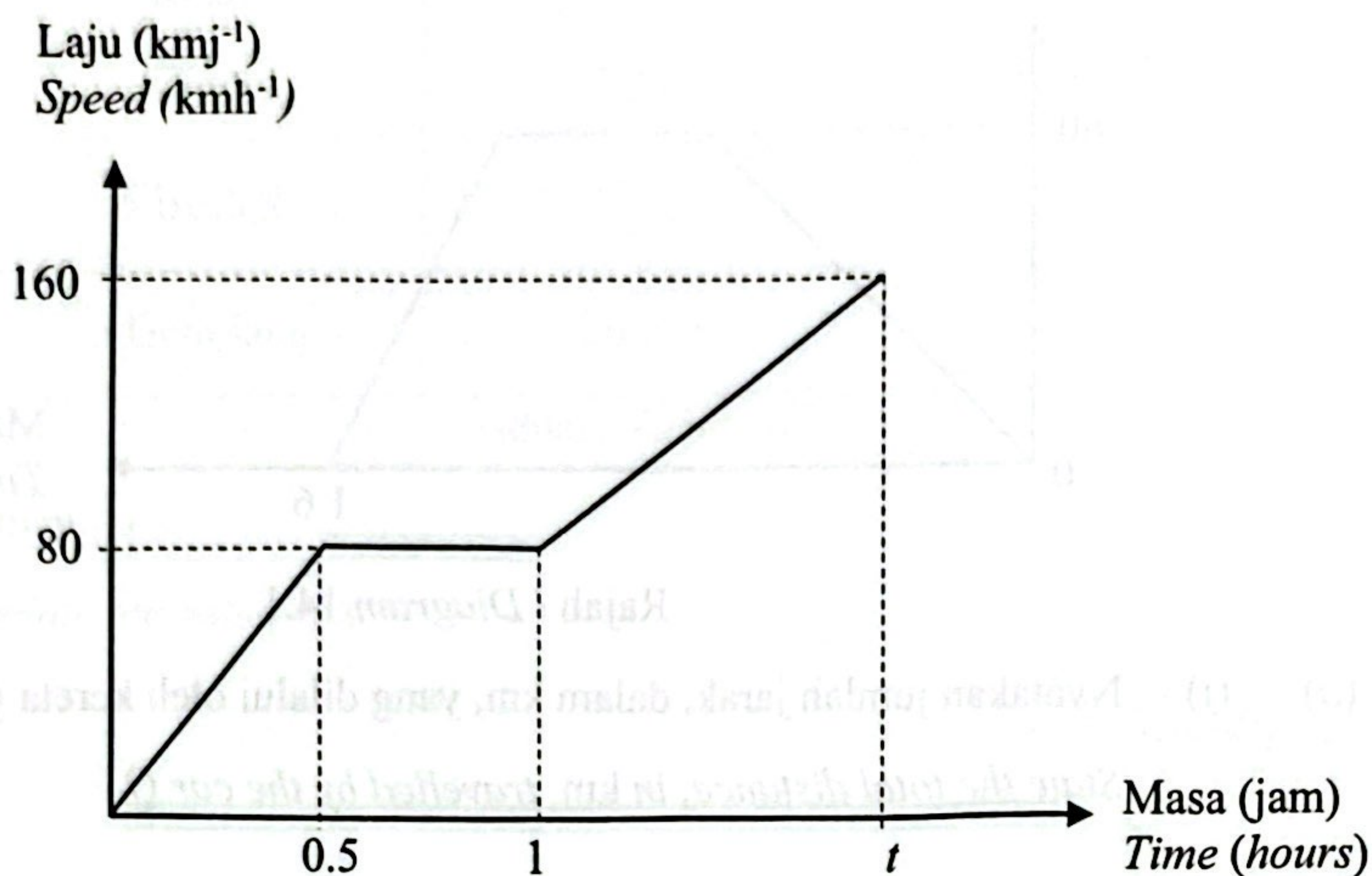
Jawapan / Answer :

- (a) (i)

- (ii)

- 14 (b) Rajah 14.2 menunjukkan graf laju-masa bagi kereta R dalam tempoh masa t jam. Diberi bahawa jumlah jarak yang dilalui kereta R ialah 240 km.

Diagram 14.2 shows the speed-time graph by a car R for a period of t hours. Given that the total distance travelled by the car R is 240 km.



Rajah / Diagram 14.2

- (i) Nyatakan laju seragam, dalam kmj^{-1} , kereta R .

State the uniform speed, in kmh^{-1} , car R .

[1 markah / mark]

- (ii) Hitung nilai t dalam jam.

Calculate the value of t in hours.

[3 markah / marks]

- (iii) Hitung kadar perubahan laju, dalam kmj^{-2} , kereta R untuk tempoh satu jam terakhir.

Calculate the rate of change in speed, in kmh^{-2} , of the car R for the last one hour.

[2 markah / marks]

Jawapan / Answer :

(a) (i)

(ii)

(iii)

- 15 (a) Syawal Bakeri Enterprise berhasrat mengeluarkan biskut keluaran terbarunya iaitu Nilam Sari dan Jejari Emas. Biskut-biskut itu akan diisi ke dalam bekas. Penghasilan biskut tersebut dalam sehari adalah berdasarkan kekangan berikut.

Syawal Bakeri Enterprise intends to produce its latest biscuits, namely Nilam Sari and Jejari Emas. The biscuits will be filled into containers. The production of the biscuits in a day is based on the following constraints.

- Bilangan bekas biskut Nilam Sari kurang daripada 250 bekas.
The number of Nilam Sari biscuit containers is less than 250 containers.
- Jumlah bilangan bekas biskut tidak melebihi 400.
The total number of biscuit containers does not exceed 400.
- Bilangan bekas biskut Jejari Emas melebihi bilangan bekas biskut Nilam Sari dengan selebih-lebihnya 200 bekas.
The number of Jejari Emas biscuit containers exceeds the number of Nilam Sari biscuit containers by at most 200 containers.

Diberi pemboleh ubah x mewakili bekas biskut Nilam Sari dan pemboleh ubah y mewakili bekas biskut Jejari Emas. Tulis tiga ketaksamaan linear, selain $x \geq 0$ dan $y \geq 0$, yang memenuhi semua kekangan berikut.

Given the variable x represents Nilam Sari biscuit containers and the variable y represents Jejari Emas biscuit containers. Write three linear inequalities, other than $x \geq 0$ and $y \geq 0$ that satisfy all of the following constraints.

[3 markah / marks]

- (b) Lukis dan lorek rantau yang memuaskan sistem ketaksamaan linear di 15(a) pada graf yang disediakan pada ruangan jawapan.

Draw and shade the region that satisfies the system of linear inequalities in 15(a) on the graph provided in the answer space.

[4 markah / marks]

- (c) Dengan menggunakan graf pada 15(b), cari bilangan maksimum bekas biskut Jejari Emas yang dikeluarkan jika bilangan bekas biskut Nilam Sari ialah 150.

Using the graph in 15(b), find the maximum number of containers of Jejari Emas biscuits produced if the number of containers of Nilam Sari biscuits is 150.

[1 markah / mark]

Jawapan / Answers :

(a)

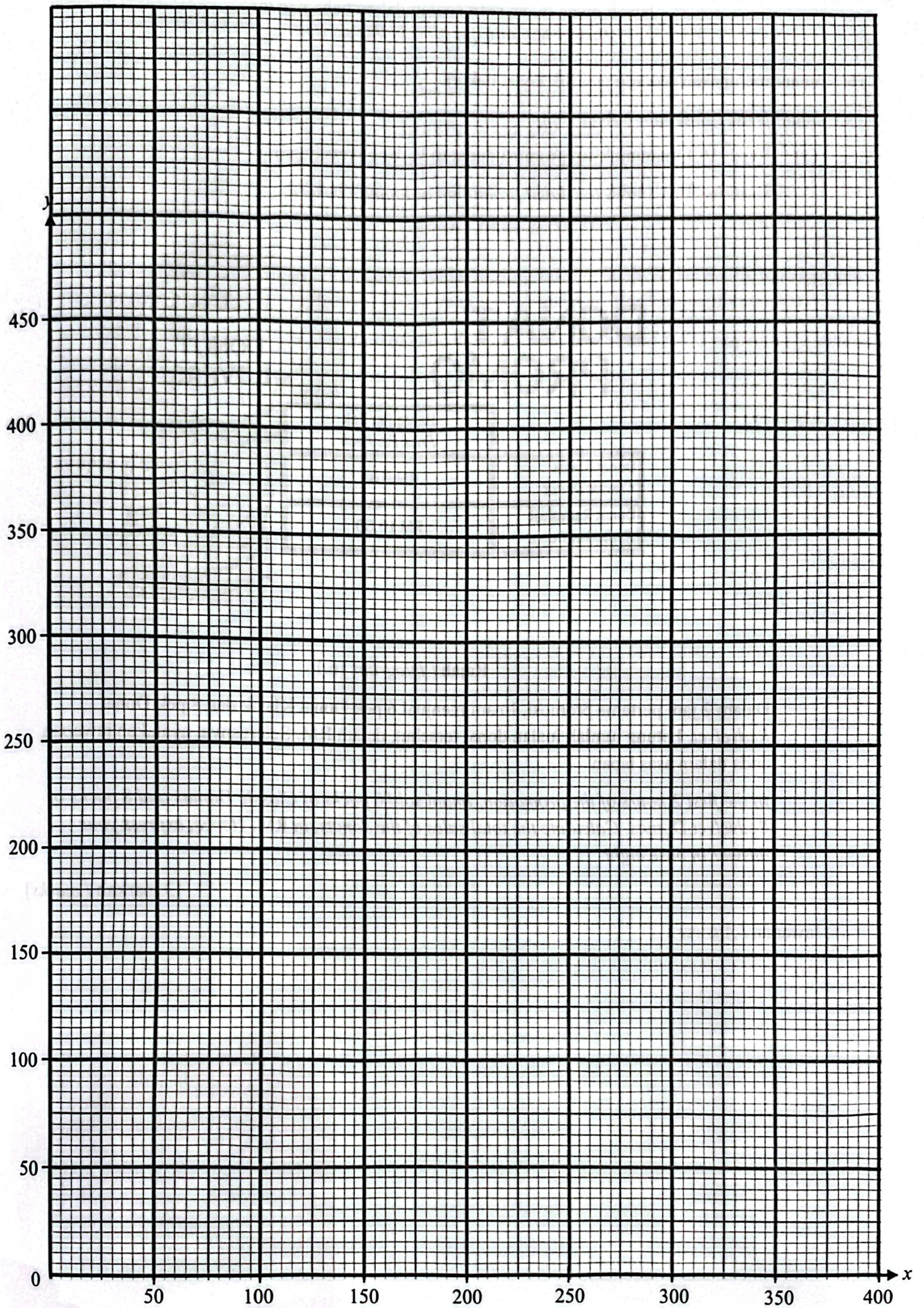
(b) Rujuk graf di halaman 31.

Refer to the graph on page 31.

(c)



Graf untuk Soalan 15(b)
Graph for Question 15(b)



Bahagian C / Section C
[15 markah / marks]

Jawab mana-mana satu soalan dalam bahagian ini.
Answer any one question in this section.

16 Imani merupakan seorang pemilik kedai bakeri.

Imani is the owner of a bakery shop.

(a) Rajah 16.1 menunjukkan promosi donat di kedai bakeri Imani.

Diagram 16.1 shows the donut promotion at Imani's bakery.



Rajah / Diagram 16.1

Dalam 2 jam pertama promosi, Imani menjual 6 pek Donat Klasik dan 8 pek Donat Redvelvet. Hitung jumlah jualan donat tersebut, dalam RM. Seterusnya, nyatakan jawapan anda dalam asas lapan.

In the first 2 hours of the promotion, Imani sold 6 packs of Classic Donuts and 8 packs of Redvelvet Donuts. Calculate the total sales of the donuts, in RM. Hence, express your answer in base eight.

[3 markah / marks]

Jawapan / Answer :

(a)

- (b) Imani juga menjual kek cawan coklat dan kek cawan strawberi. Rajah 16.2 menunjukkan kuantiti kek cawan strawberi yang dijualnya selama 10 hari.

Imani also sells chocolate cupcakes and strawberry cupcakes. Diagram 16.2 shows the quantity of strawberry cupcakes she sold over 10 days.

Jualan kek cawan strawberi
Strawberry cupcake sales

19	18	30	23	34	24	15	30	33	24
----	----	----	----	----	----	----	----	----	----

Rajah / Diagram 16.2

Jika min dan sisihan piawai kek cawan coklat masing-masing ialah 34 dan 8.473, tentukan kek cawan manakah yang mempunyai jualan yang lebih konsisten? Berikan justifikasi anda.

If the mean and standard deviation of chocolate cupcakes are 34 and 8.473 respectively, determine which cupcake has more consistent sales? Give your justification.

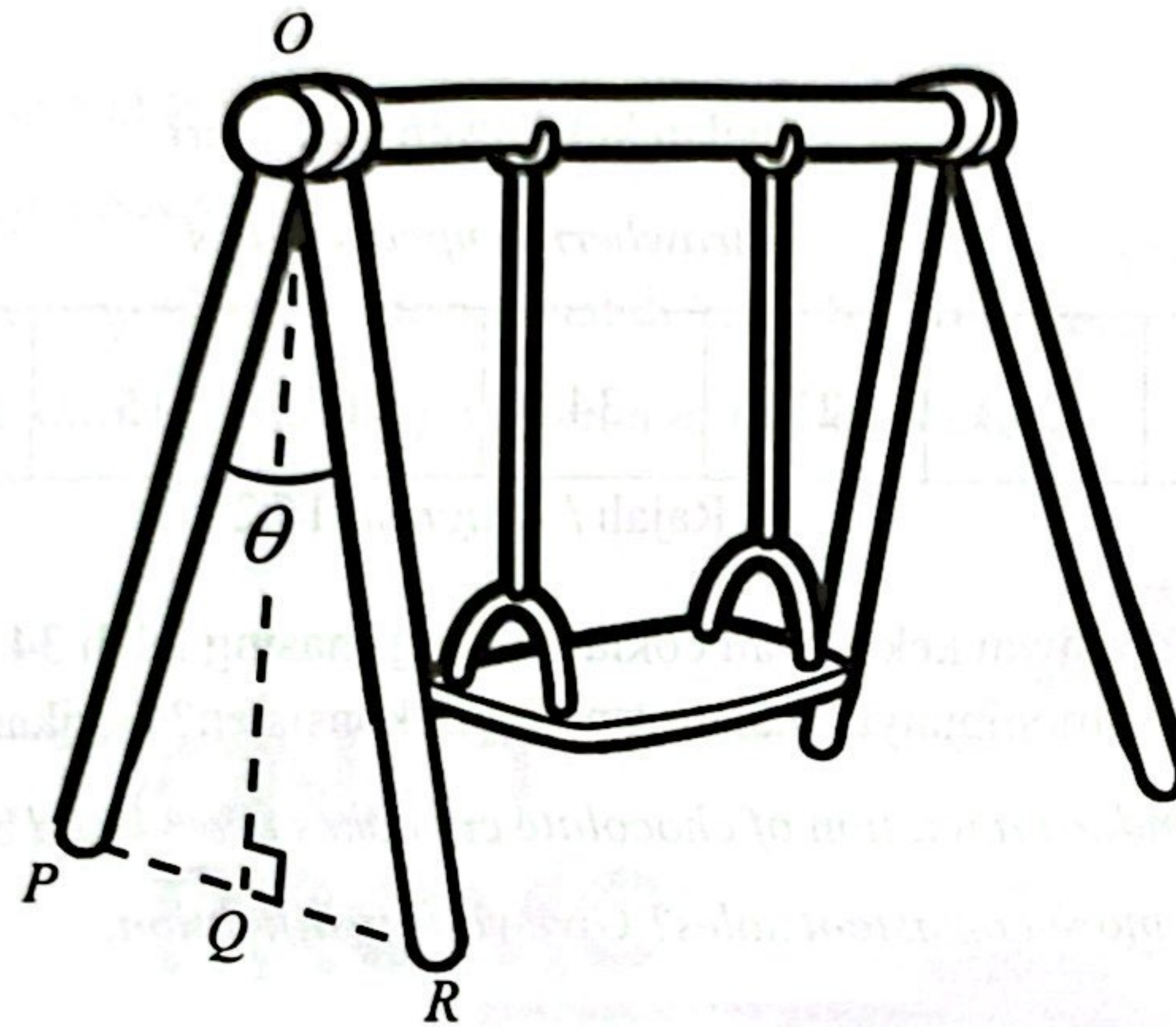
[5 markah / marks]

Jawapan / Answer :

(b)

- (c) Rajah 16.3 menunjukkan buaian yang terdapat di padang permainan yang berdekatan dengan kedai bakeri Imani.

Diagram 16.3 shows the swings in the playground near Imani's bakery.



Rajah / Diagram 16.3

Diberi $OP = OR$, $PR = 140$ cm dan $OQ = 200$ cm. Hitung,

Given $OP = OR$, $PR = 140$ cm and $OQ = 200$ cm. Calculate,

- (i) panjang OP .
the length of OP .
- (ii) nilai θ .
the value of θ .

[5 markah / marks]

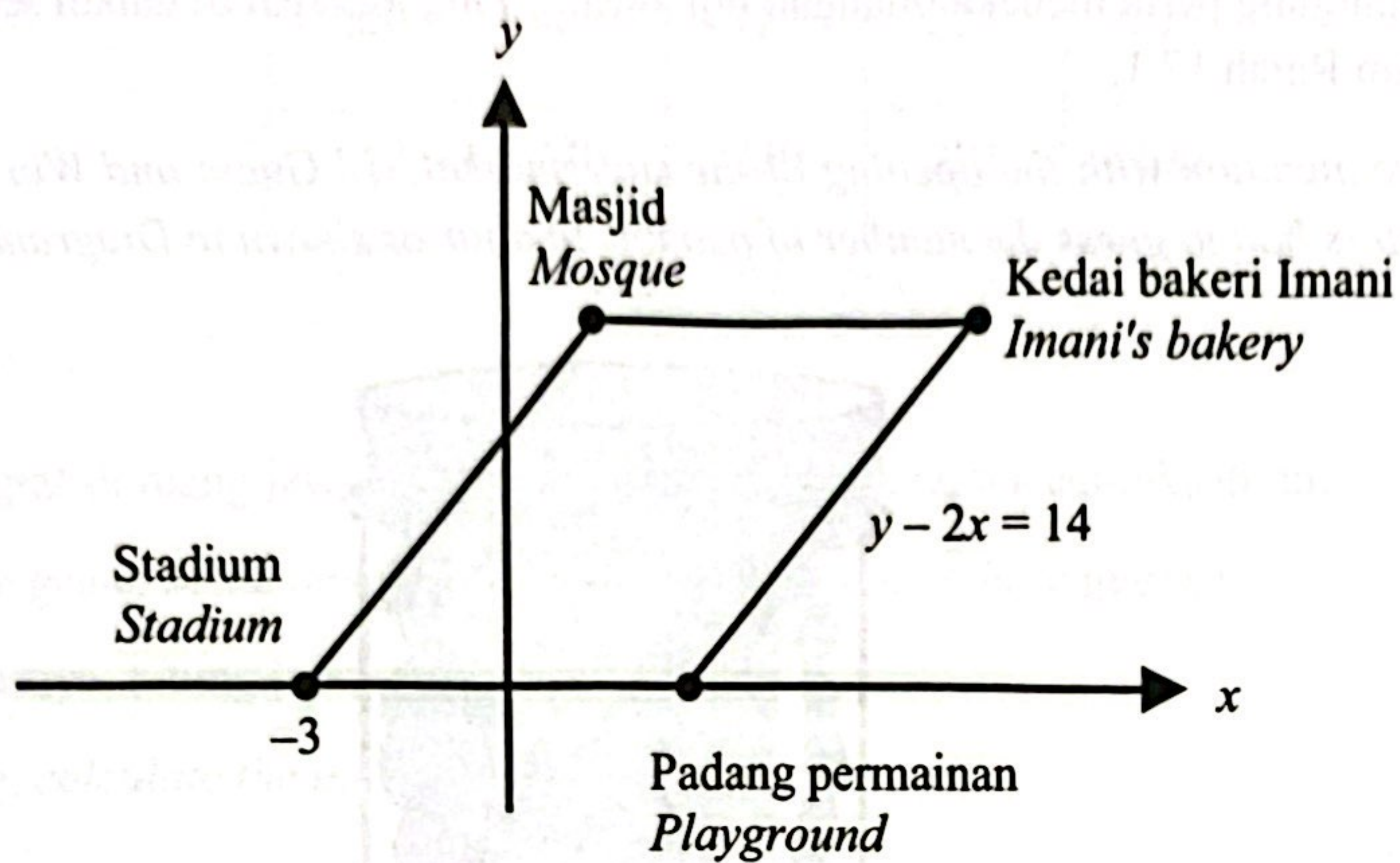
Jawapan / Answer :

(c) (i)

(ii)

- (d) Rajah 16.4 menunjukkan kawasan di sekitar kedai bakeri Imani, yang dilukis pada satah Cartes.

Diagram 16.4 shows the area around Imani's bakery, drawn on a Cartesian plane.



Rajah / Diagram 16.4

Diberi bahawa garis lurus yang menghubungkan kedai bakeri Imani dan padang permainan adalah selari dengan garis lurus yang menghubungkan masjid dan stadium. Cari persamaan garis lurus yang menghubungkan masjid dan stadium.

Given that the straight line connects Imani's bakery and the playground is parallel to the straight line connects the mosque and the stadium. Find the equation of the straight line connects the mosque and the stadium.

[3 markah / marks]

Jawapan / Answer :

(d)

- 17 Pasar raya Naeyla baharu sahaja dibuka di Sik.

Naeyla supermarket has just opened in Sik.

- (a) Sempena pembukaan pasar raya tersebut, satu peraduan "Teka dan Menang" telah diadakan. Pengunjung perlu meneka bilangan biji kacang yang terdapat di dalam sebuah balang seperti dalam Rajah 17.1.

In conjunction with the opening of the supermarket, a "Guess and Win" contest was held. Visitors had to guess the number of peanuts in a jar as shown in Diagram 17.1.



Rajah/ Diagram 17.1

Jumlah sebenar bilangan kacang di dalam balang itu ialah sebanyak 433₇ biji.

Imran meneka bilangan kacang sebanyak 235 biji. Tentukan sama ada tekaannya tepat atau tidak.

The actual number of peanuts in the jar is 433₇.

Imran guessed the number of peanuts to be 235. Determine whether his guess was correct or not.

[2 markah / marks]

Jawapan / Answer :

(a)

(b) Jadual 17 menunjukkan beberapa tekaan pengunjung pada hari berikutnya.

Table 17 shows some of the visitors' guesses the following day.

200	205	210	228	225
212	220	229	205	200

Jadual / Table 17

(i) Pada graf di ruang jawapan, lukis satu plot kotak bagi tekaan-tekaan ini.

On the graph in the answer space, draw a box plot of these guesses.

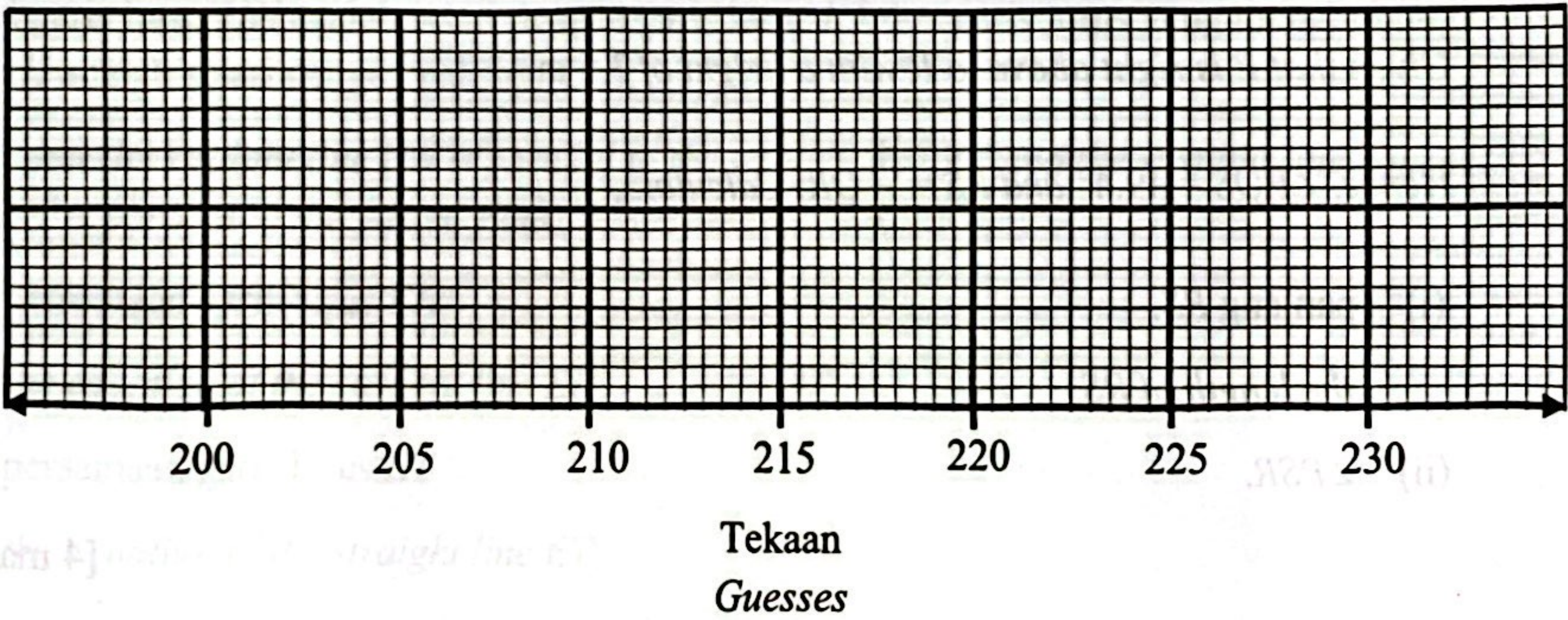
(ii) Seterusnya, hitung julat antara kuartil.

Hence, calculate the interquartile range.

[5 markah / marks]

Jawapan / Answer :

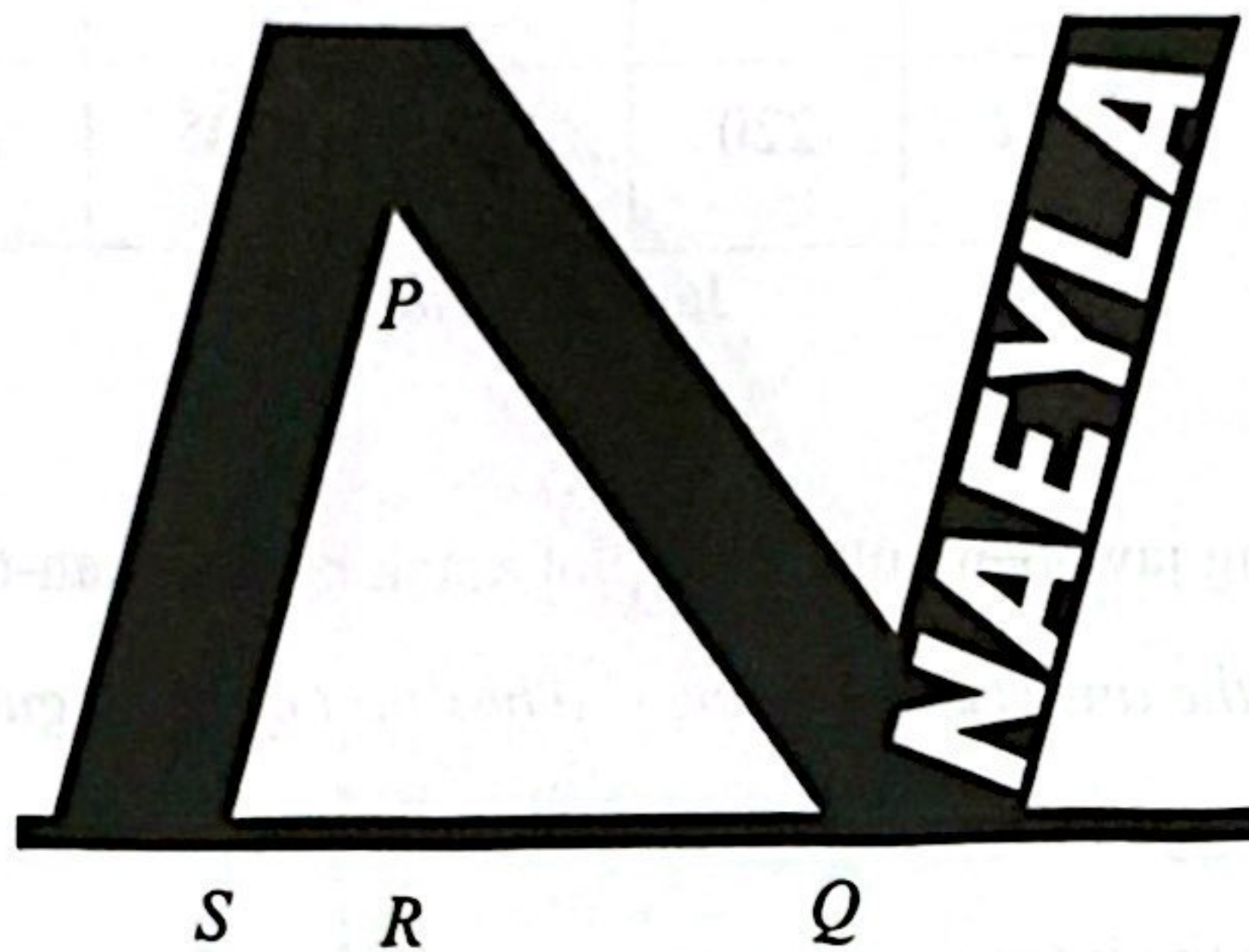
(b) (i)



(ii)

- (c) Sempena pembukaan, pemilik pasar raya juga melancarkan satu replika logo pasar raya itu seperti yang ditunjukkan dalam Rajah 17.2 di bawah.

In conjunction with the opening, the supermarket owner also launched a replica of the supermarket's logo as shown in Diagram 17.2 below.



Rajah/ Diagram 17.2

Diberi P berada tegak di atas R dengan ketinggian 3.5 m.

Seterusnya, $\angle PQS = 49.4^\circ$ dan $RS = \frac{1}{3}QR$. Hitung,

Given that P is right above to R with a height of 3.5 m.

Hence, $\angle PQS = 49.4^\circ$ and $RS = \frac{1}{3}QR$. Calculate,

- (i) panjang RS .
the length of RS .
- (ii) $\angle PSR$.

[4 markah / marks]

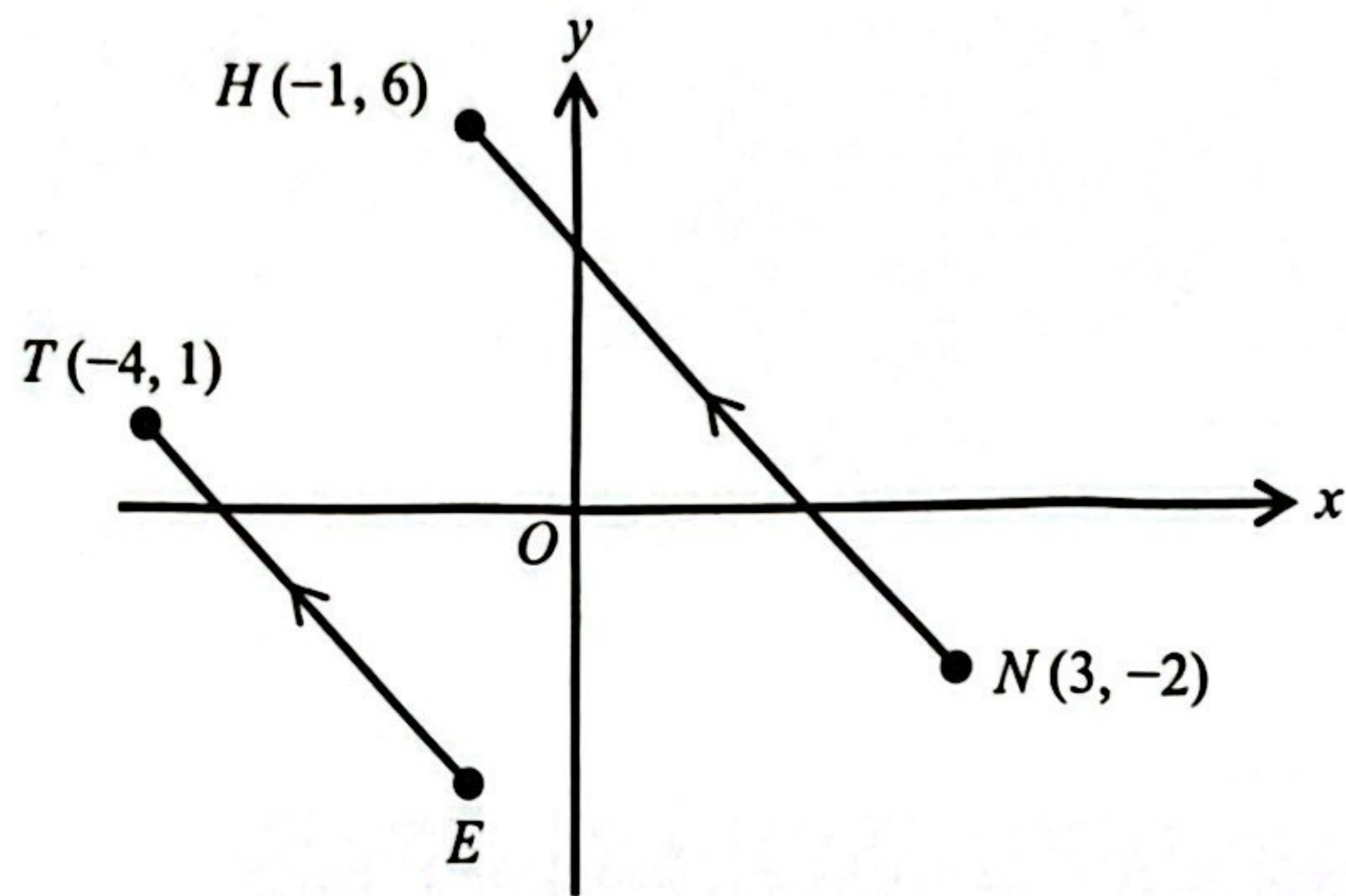
Jawapan / Answer :

- (c) (i)

- (ii)

- (d) Rajah 17.3 menunjukkan kedudukan empat tempat, iaitu pintu masuk (E), kaunter “Teka dan Menang” (T), kaunter hadiah (H) dan Replika logo Naeyla (N), yang dilukis pada suatu satah Cartes.

Diagram 17.3 shows the positions of four places, namely the entrance (E), the “Guess and Win” counter (T), the prize counter (H) and the Naeyla’s logo Replica (N), drawn on a Cartesian plane.



Rajah / Diagram 17.3

Diberi garis lurus HN adalah selari dengan garis lurus ET dan garis lurus yang menghubungkan E dan H adalah selari dengan paksi- y . Cari,

Given that the straight line HN is parallel to the straight line ET and the straight line connecting E and H is parallel to the y -axis. Find,

- (i) persamaan garis lurus EH .
the equation of the straight line EH .
- (ii) persamaan garis lurus ET .
the equation of the straight line ET .

[4 markah / marks]

Jawapan / Answer :

(d) (i)

(ii)

- 12 (b) (ii) Encik Malek telah membeli insurans motor untuk keretanya yang mempunyai peruntukan deduktibel sebanyak RM350. Jadual 12.3 menunjukkan kerugian yang dialami oleh Encik Malek dalam dua kemalangan kenderaan dalam tempoh insurans tersebut.

Encik Malek has purchased motor insurance for his car with a deductible provision of RM350. Table 12.3 shows the losses suffered by Encik Malek in two vehicle accidents during the insurance coverage period.

Bulan Month	Kerugian (RM) Loss (RM)
April	320
September	780

Jadual / Table 12.3

Tentukan sama ada Encik Malek boleh membuat tuntutan terhadap kerugian yang dialaminya atau tidak bagi setiap bulan tersebut.

Jika ya, nyatakan jumlah bayaran pampasan yang boleh dituntutnya.

Jika tidak, nyatakan justifikasi anda.

Determine whether Encik Malek can make a claim for the losses he suffered for each month.

If yes, state the amount of compensation he can claim.

If no, state your justification.

[2 markah / marks]

Jawapan / Answer :

(b) (ii) April:

September: