NO. KAD PENGENALAN														
ANGKA GILIRAN														

UJIAN PERCUBAAN SPM 2025

MATHEMATICS **1449/1**

Kertas 1

OGOS

$1\frac{1}{2}$ jam **Satu jam tiga puluh minit**

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

1. *Kertas soalan ini mengandungi* **40** *soalan.*
2. *Jawab* ***semua*** *soalan.*
3. *Jawab setiap soalan dengan menghitamkan ruangan yang betul pada kertas jawapan objektif.*
4. *Hitamkan* ***satu*** *ruangan sahaja bagi setiap soalan.*
5. *Jika anda ingin mengubah jawapan, padamkan tanda yang telah dihitamkan.*

   Kemudian hitamkan jawapan yang baharu.
6. *Rajah di dalam soalan tidak dilukis mengikut skala kecuali dinyatakan.*
7. *Satu senarai rumus disediakan.*
8. *Anda dibenarkan menggunakan kalkulator saintifik.*

Kertas peperiksaan ini mengandungi 19 halaman bercetak

RUMUS MATEMATIK
MATHEMATICAL FORMULAE

Rumus-rumus berikut boleh membantu anda menjawab soalan. Simbol-simbol yang diberi adalah yang biasa digunakan.
The following formulae may be helpful in answering the questions. The symbols given are the one commonly used.

NOMBOR DAN OPERASI
NUMBERS 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 $a^{\frac{m}{n}} = (a^m)^{\frac{1}{n}} = \left(a^{\frac{1}{n}}\right)^m$

6 $a^{\frac{m}{n}} = \sqrt[n]{a^m} = \left(\sqrt[n]{a}\right)^m$

7 Faedah mudah / *Simple interest,* $I = Prt$

8 Nilai matang / *Matured value,* $MV = P\left(1 + \frac{r}{n}\right)^{nt}$

9 Jumlah bayar balik / *Total repayment,* $A = P + Prt$

10 Premium = $\frac{\text{Nilai muka polisi}}{\text{RM}x} \times$ (Kadar premium per RMx)

Premium = $\frac{\textit{Face value of policy}}{\text{RM}x} \times (\textit{Premium rate per } \text{RM}x)$

11 Jumlah insurans yang harus dibeli = $\begin{pmatrix}\text{Peratusan}\\ \text{ko-insurans}\end{pmatrix} \times \begin{pmatrix}\text{Nilai boleh}\\ \text{insurans harta}\end{pmatrix}$

Amount of required insurance = $\begin{pmatrix}\textit{Percentage of}\\ \textit{co-insurance}\end{pmatrix} \times \begin{pmatrix}\textit{Insurable value}\\ \textit{of property}\end{pmatrix}$

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 = $\frac{\text{Jumlah jarak}}{\text{Jumlah masa}}$

4 $m = \frac{y_2 - y_1}{x_2 - x_1}$

Average speed = $\frac{Total\ distance}{Total\ time}$

5 $m = -\frac{y\text{-}intercept}{x\text{-}intercept}$

6 $A^{-1} = \frac{1}{ad-bc}\begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$

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* = $(n-2) \times 180°$

3 Lilitan bulatan = $\pi d = 2\pi j$

Circumference of circle = $\pi d = 2\pi r$

4 Luas bulatan = πj^2

Area of circle = πr^2

5 $$\frac{\text{Panjang lengkok}}{2\pi j} = \frac{\theta}{360°}$$

$$\frac{Arc\ length}{2\pi r} = \frac{\theta}{360°}$$

6 $$\frac{\text{Luas sektor}}{\pi j^2} = \frac{\theta}{360°}$$

$$\frac{Area\ of\ sector}{\pi r^2} = \frac{\theta}{360°}$$

7 Luas lelayang = $\frac{1}{2}\times$ hasil darab panjang dua pepenjuru

Area of kite = $\frac{1}{2}\times$ *product of two diagonals*

8 Luas trapezium = $\frac{1}{2}\times$ hasil tambah dua sisi selari $\times$ tinggi

Area of trapezium = $\frac{1}{2}\times$ *sum of two parallel sides* $\times$ *height*

9 Luas permukaan silinder = $2\pi j^2 + 2\pi jt$
Surface area of cylinder = $2\pi r^2 + 2\pi rh$

10 Luas permukaan kon = $\pi j^2 + \pi js$
Surface area of cone = $\pi r^2 + \pi rs$

11 Luas permukaan sfera = $4\pi j^2$
Surface area of sphere = $4\pi r^2$

12 Isi padu prisma = luas keratan rentas $\times$ tinggi
Volume of prism = cross sectional area $\times$ *height*

13 Isi padu silinder = $\pi j^2 t$
Volume of cylinder = $\pi r^2 t$

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 = $\frac{1}{3}$ × luas tapak × tinggi

Volume of pyramid = $\frac{1}{3}$ × *base area* × *height*

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

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

18 Luas imej = k^2 × luas objek

Area of image = k^2 × *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 / $Standard\ deviation, \sigma = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2} = \sqrt{\frac{\sum f(x-\bar{x})^2}{\sum f}}$

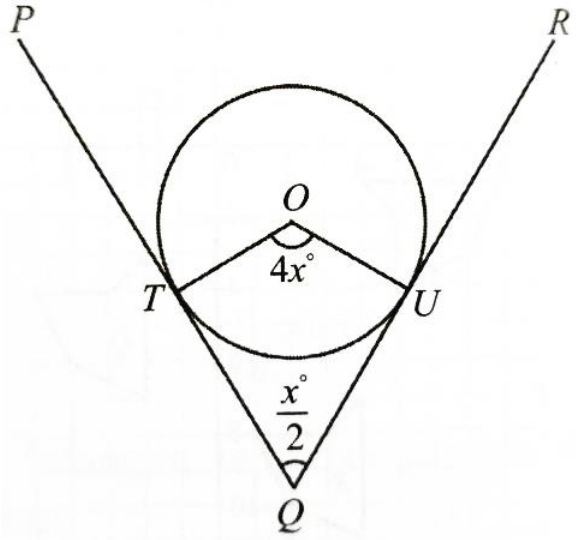
7 $P(A) = \frac{n(A)}{n(S)}$

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

1. Bundarkan 0.03232 betul kepada satu angka bererti.
   Round off 0.03232 *correct to one significant figure.*
   A 0.03
   B 0.04
   C 0.030
   D 0.003

2. Sebuah tangki air berbentuk silinder telah dipenuhi oleh air. Selepas sehari, didapati 25% daripada muatan penuh air di dalam tangki itu telah berkurangan. Jika isi padu air yang tinggal ialah 54.62 m^3, cari isipadu tangki itu, dalam cm^3.
   A cylindrical water tank has been filled with water. After a day, it was found that 25% *of the full capacity of water in the tank decreased. If the volume of the remaining water is* 54.62 m^3, *find the volume of the water tank, in* cm^3.
   A 1.37×10^3
   B 1.37×10^7
   C 7.28×10^3
   D 7.28×10^7

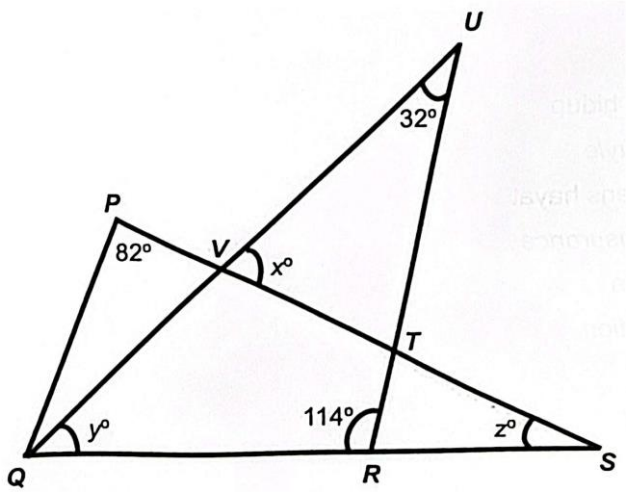
3. Rajah 1 menunjukkan sebuah bulatan dengan pusat *O*. *PTQ* dan *RUQ* ialah tangen kepada bulatan itu masing-masing di *T* dan *U*.
   Diagram 1 *shows a circle with the centre O. PTQ and RUQ are the tangents to the circle at T dan U respectively.*



Rajah 1 / *Diagram* 1

   Cari nilai *x*.
   Find the value of x.
   A 20
   B 40
   C 72
   D 80

4. Dalam Rajah 2, *PQRTV* ialah poligon tak sekata. *PVTS*, *QVU*, *RTU* dan *QRS* ialah garis lurus.
In Diagram 2, *PQRTV is an irregular polygon. PVTS, QVU, RTU and QRS are straight lines.*

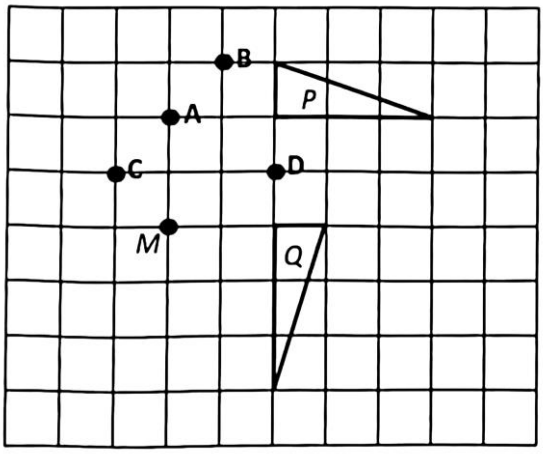


Rajah 2 / *Diagram* 2

Diberi $\angle UQR$ ialah dua kali $\angle PQV$, cari nilai $x + y + z$.
Given $\angle UQR$ *is twice* $\angle PQV$, *find the value of* $x + y + z$.

A 152
B 160
C 162
D 180

5. Rajah 3 menunjukkan dua segitiga, *P* dan *Q*, dilukis pada grid segiempat sama.
Diagram 3 *shows two triangles, P and Q, drawn on square grids.*



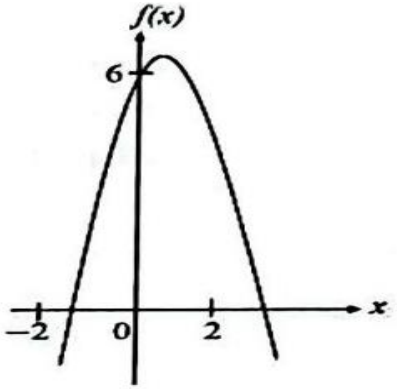
Rajah 3 / *Diagram* 3

Diberi *Q* ialah imej bagi *P* di bawah satu putaran.
Antara titik **A**, **B**, **C** dan **D**, yang manakah imej bagi titik **M** di bawah putaran yang sama.
Given Q is the image of P under a rotation.
Which of the point **A**, **B**, **C** *and* **D**, *is the image of point* ***M*** *under the same rotation.*

6. Diberi luas objek dan imej di bawah suatu pembesaran masing-masing ialah 63 cm^2 dan 7 cm^2.
   Hitung faktor skala bagi pembesaran itu.
   Given that the area of the object and the image under an enlargement are 63 cm^2 *and* 7 cm^2 *respectively.*
   Calculate the scale factor of the enlargement.
   A $\frac{1}{9}$
   B $\frac{1}{3}$
   C 3
   D 9

7. Tentukan punca bagi persamaan kuadratik $2x^2 - x = 6$.
   Find the root for the quadratic equation $2x^2 - x = 6$.
   A $-\frac{3}{2}$
   B -2
   C $\frac{3}{2}$
   D -3

8. Rajah 4 menunjukkan fungsi kuadratik $f(x) = -2x^2 + 3x + 6$.
   Diagram 4 *shows a quadratic function* $f(x) = -2x^2 + 3x + 6$.



Rajah 4 / *Diagram* 4

Apakah kesan kepada graf fungsi tersebut jika nilai "b" berubah kepada -6?
What is the effect on the graph of the function if the value of "b" changes to -6*?*
A Tiada perubahan
No effect
B Paksi simetri berada di kiri paksi-*y*
Axis of symmetry is on the left of y-axis
C Paksi simetri berada di kanan paksi-y
Axis of symmetry is on the right of y-axis
D Paksi simetri berada di bawah paksi-*x*
Axis of symmetry is under x-axis

[Lihat halaman sebelah

9. Tukar 685_9 kepada nombor dalam asas lima.
Convert 685_9 *to a number in base five.*
A 112_5
B 380_5
C 563_5
D 4223_5

10. Khairul berumur 63 tahun, manakala umur anaknya ialah nombor tiga digit terbesar dalam asas tiga. Hitung beza umur mereka dalam asas dua.
Khairul is 63 *years old, while his son's age is the largest three digit number in base three. Calculate the difference in their ages in base two.*
A 37_2
B 222_2
C 1101_2
D 100101_2

11. Diberi pernyataan / *Given a statement:*

Semua transformasi ialah transformasi isometri *All transformations are isometric transformation*

Antara berikut, yang manakah ialah contoh penyangkal untuk menafikan kebenaran pernyataan di atas?
Which of the following is the counter-example to negate the truth of the above statement?
A Putaran bukan transformasi isometri
Rotation is not an isometric transformation
B Pantulan bukan transformasi isometri
Relection is not an isometric transformation
C Translasi bukan transformasi isometri
Translation is not an isometric transformation
D Pembesaran bukan transformasi isometri
Enlargement is not an isometric transformation

12. Diberi implikasi / *Given an implication:*

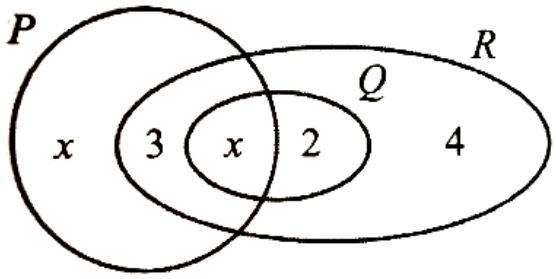
Jika $3 \times 3 = 6$, maka $3 + 3 = 6$ *If* $3 \times 3 = 6$, *then* $3 + 3 = 6$

Tentukan nilai kebenaran bagi implikasi itu dan kontrapositifnya.
Determine the truth value for the implication and its contrapositive.

	Implikasi / *Implication*	Kontrapositif / *Contrapositive*
A	Benar / *True*	Benar / *True*
B	Benar / *True*	Palsu / *False*
C	Palsu / *False*	Palsu / *False*
D	Palsu / *False*	Benar / *True*

[Lihat halaman sebelah

13. Rajah 5 ialah gambar rajah Venn yang menunjukkan bilangan unsur dalam set *P*, set *Q* dan set *R* dengan keadaan set semesta, $\xi = P \cup Q \cup R$.
Diagram 5 *is a Venn diagram that shows the number of elements in set P, set Q and set R such that the universal set,* $\xi = P \cup Q \cup R$.

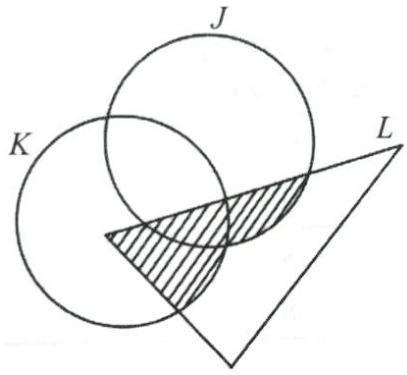


Rajah 5 / *Diagram* 5

Diberi bahawa $n(P) = n(R)$.
Cari $n(P \cup Q)$.
It is given that $n(P) = n(R)$.
Find $n(P \cup Q)$.

A 10
B 16
C 17
D 22

14. Rajah 6 ialah gambar rajah Venn yang menunjukkan set *J*, set *K* dan set *L* dengan keadaan set semesta, $\xi = J \cup K \cup L$.
Diagram 6 *is a Venn diagram that shows set J, set K and set L such that the universal set,* $\xi = J \cup K \cup L$.

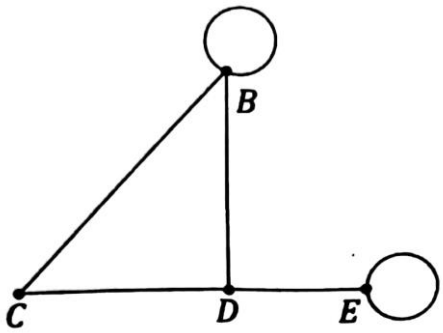


Rajah 6 / *Diagram* 6

Set manakah mewakili rantau berlorek?
Which set represents the shaded region?

A $K \cap L \cap J$
B $(K \cup L) \cap J$
C $(K \cap J) \cup L$
D $(K \cup J) \cap L$

15. Rajah 7 menunjukkan satu graf.
Diagram 7 shows a graph.

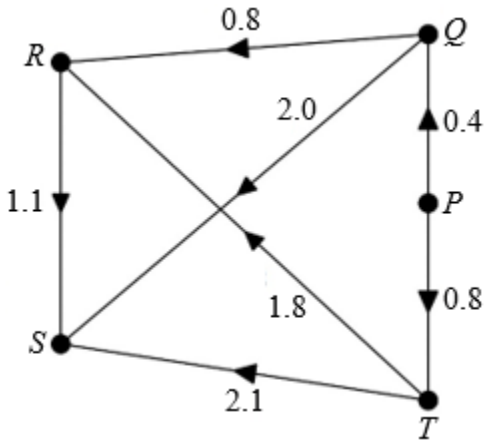


Rajah 7 / *Diagram* 7

Bucu yang mana mempunyai darjah yang paling tinggi?
Which vertex has the highest number of degree?

A **B**
B **C**
C **D**
D **E**

16. Rajah 8 menunjukkan graf terarah dari rumah Ameera di *P*, ke pejabatnya di *S*.
Diagram 8 shows a directed graph from Ameera's house at P, to her office at S.



Rajah 8 / *Diagram* 8

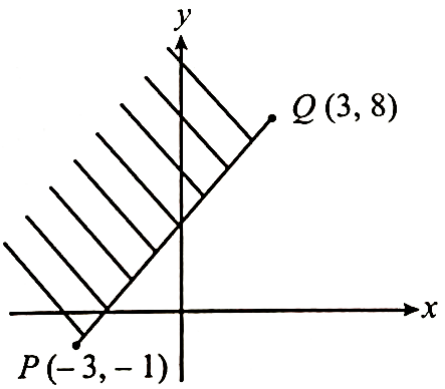
Tentukan laluan terpendek yang dipilih oleh Ameera untuk ke pejabat dengan mengambil kira jarak terpendek.
Determine the best route chosen by Ameera to go to her office by taking the shortest distance.

A $P \rightarrow Q \rightarrow S$
B $P \rightarrow T \rightarrow S$
C $P \rightarrow Q \rightarrow R \rightarrow S$
D $P \rightarrow T \rightarrow R \rightarrow S$

17. S merupakan pendapatan bulanan Johan, dalam RM. Pendapatan bulanan Johan lebih daripada RM8 300.
Ketaksamaan linear yang manakah mewakili situasi di atas?
S represents Johan's monthly income, in RM. *Johan's monthly income is more than* RM8,300.
Which linear inequality represents the situation above?

A $S < 8\,300$
B $S \leq 8\,300$
C $S > 8\,300$
D $S \geq 8\,300$

18. Dalam Rajah 9, *PQ* ialah satu garis lurus yang dilukis pada suatu satah Cartes.
In Diagram 9, *PQ is a straight line drawn on a Cartesian plane.*



Rajah 9 / *Diagram* 9

Tentukan ketaksamaan yang mewakili kawasan berlorek
Determine the inequality that represent the shaded region.

A $2y < 3x + 7$
B $2y \geq 3x + 7$
C $3y < 2x + 18$
D $3y \geq 2x + 18$

19. Alias telah memotong sebatang kayu yang panjangnya *y* cm kepada tiga bahagian. Panjang bahagian pertama dan kedua masing-masing ialah *x* cm dan 3*x* cm. Jika *x* = 7 dan panjang bahagian kedua adalah tujuh kali panjang bahagian ketiga, hitung nilai *y*.
Alias has cut a piece of wood y cm *into three parts. The lengths of the first and second part are x* cm *and* 3*x* cm *respectively. If x = 7 and the length of the second part is seven times of the length of the third part, calculate the value of y.*

A 28
B 31
C 33
D 77

20. Diberi harga sebuah kamera selepas cukai jualan 10% dikenakan ialah RM5 621.
Hitung harga jualan kamera itu sebelum dikenakan cukai.
Given the price of a camera after 10% *sales tax is* RM5 621.
Calculate the selling price of the camera before the tax is imposed.

A RM562.10
B RM5 110
C RM5 621
D RM6 183

21. Diberi $\frac{2-9y^2}{x} = 5$, ungkapkan *y* dalam sebutan *x*.
Given $\frac{2-9y^2}{x} = 5$, *express y in terms of x.*

A $y = \frac{\sqrt{2-5x}}{3}$
B $y = \frac{\sqrt{5x-2}}{3}$
C $y = \frac{\sqrt{2-5x}}{9}$
D $y = \frac{\sqrt{5x-2}}{9}$

22. Permudahkan :
Simplify :

$$(2k)^3 \times 4k^2$$

A $8k^5$
B $24k^6$
C $32k^5$
D $48k^6$

23. Diberi $a = b - cd$, ungkapkan b sebagai perkara rumus.
Given $a = b - cd$, *express b as the subject of the formula.*

A $b = a - cd$
B $b = a + cd$
C $b = -a - cd$
D $b = -a + cd$

24. Diberi persamaan bagi garis lurus PQ ialah $3y + 2x = 6$. Tentukan kecerunan garis lurus *PQ*.
Given the equation of the straight line PQ is $3y + 2x = 6$. *Determine the gradient of the straight line PQ.*

A $-\frac{3}{2}$
B $-\frac{2}{3}$
C $\frac{2}{3}$
D 2

25. Jadual 1 di bawah menunjukkan kadar untuk cukai pintu yang perlu dibayar oleh penduduk Bandar *P*.
Table 1 *shows the rate for property assessment tax that must be paid by residents of Town P.*

Nilai tahunan ***Annual value***	**Kadar cukai pintu** ***Property asssessment tax rate***
RM13 200	4%

Jadual 1 / *Table* 1

Jika kadar cukai pintu di Bandar *Q* adalah 1.5 kali lebih tinggi daripada kadar cukai pintu di Bandar *P* bagi nilai tahunan yang sama, hitung jumlah cukai pintu yang perlu dibayar oleh seorang penduduk di Bandar *Q*.
If the property assessment tax rate in Town Q is 1.5 times higher than the property assessment tax rate in Town P for the same annual value, calculate the amount of property assessment tax that a resident of Town Q must pay.

A RM52.80
B RM79.20
C RM528
D RM792

26. Rajah 10 menunjukkan satu set data yang merupakan nombor-nombor bulat.
The diagram 10 *shows the set of data, which are whole numbers.*

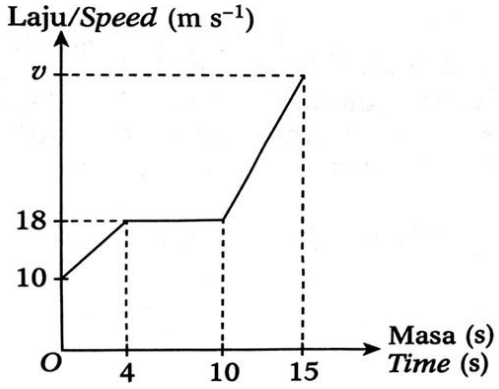
14, 12, 14, 15, 21, *x*, 24, 18

Rajah 10 / *Diagram* 10

Jika varians ialah 17.0, tentukan median bagi set data itu.
If the variance is 17.0, *determine the median for the set of data.*

A 22
B 18
C 16.5
D 15.5

27. Rajah 11 ialah graf laju-masa yang menunjukkan gerakan sebuah kereta dalam tempoh 15 saat.
Diagram 11 *is a speed-time graph that shows the motion of a car for a period of 15 seconds.*

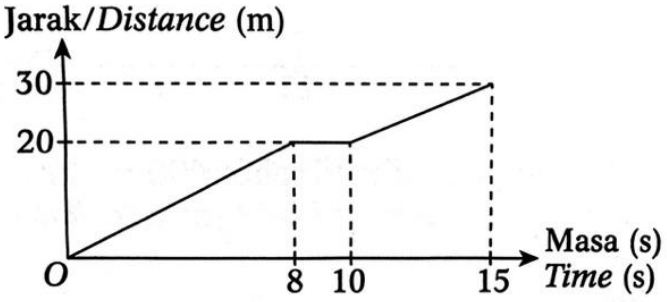


Rajah 11 / *Diagram* 11

Diberi kadar perubahan laju dalam 5 saat terakhir adalah dua kali kadar perubahan laju dalam 4 saat pertama. Hitung nilai v.
Given the rate of change of speed for the last 5 seconds is twice the rate of change of speed for the first 4 seconds. Calculate the value of v.

A 2
B 4
C 20
D 38

28. Rajah 12 menunjukkan graf jarak-masa bagi suatu zarah dalam tempoh 15 saat.
Diagram 12 *shows the distance-time graph shows the motion of a particle for a period of* 15 *seconds.*



Rajah 12 / *Diagram* 12

Tentukan tempoh masa, dalam saat, zarah itu dalam keadaan pegun.
Determine the duration, in seconds, when the particle is stationary.

A 2
B 5
C 8
D 20

[Lihat halaman sebelah

29. Jadual 2 menunjukkan jisim 48 paket gula-gula.
Table 2 *shows the masses of* 48 *packets of sweets.*

Jisim (g) *Mass* (g)	49	50	51	52	53
Kekerapan *Frequency*	5	9	15	12	7

Jadual 2 / *Table* 2

Tentukan julat antara kuartil bagi data itu.
Determine the interquartile range for the data.

A 1 g
B 2 g
C 3 g
D 4 g

30. Jadual 3 menunjukkan maklumat bagi nilai $\sum x$ dan Σx^2 bagi suatu set data.
Table 3 *shows an information for the values of* $\sum x$ *and* Σx^2 *for a set of data.*

N	$\sum x$	Σx^2
6	45	373

Jadual 3 / *Table* 3

Hitung sisihan piawai.
Calculate the standard deviation.

A 2.43
B 5.92
C 7.39
D 54.55

31. Kotak *P* mengandungi kad berlabel dengan nombor 1, 4, 7 dan 12. Kotak *Q* mengandungi kad berlabel dengan huruf X, Y dan Z. Sekeping kad dipilih secara rawak dari setiap kotak. Hitung kebarangkalian mendapat satu faktor bagi 12 dan satu huruf Z.
Box P contains cards labelled with numbers 1, 4, 7 *and* 12. *Box Q contains cards labelled with letters* X, Y *and* Z. *A card is picked at random from each box. Calculate the probability of getting a factor of* 12 *and a letter* Z.

A $\frac{1}{3}$
B $\frac{1}{4}$
C $\frac{1}{5}$
D $\frac{1}{6}$

[Lihat halaman sebelah

32. Terdapat 8 biji guli merah, 12 biji guli kuning dan beberapa biji guli biru di dalam sebuah beg. Jika sebiji guli dipilih secara rawak, kebarangkalian mendapat guli kuning ialah 0.3. Hitung kebarangkalian bahawa guli merah **tidak** terpilih.
There are 8 *red marbles,* 12 *yellow marbles and some blue marbles in a bag. If a marble is chosen at random, the probability of choosing a yellow marble is* 0.3*. Calculate the probability that a red marble is* ***not*** *chosen.*

A $\frac{2}{3}$

B $\frac{7}{10}$

C $\frac{11}{15}$

D $\frac{4}{5}$

33. Jadual 4 di bawah menunjukkan perbelanjaan Rahim dalam sebulan.
Table 4 *shows the expenses of Rahim in a month.*

Perbelanjaan ***Expenses***	**RM**
Elaun kepada ibu bapa *Allowance for parents*	600
Ansuran pinjaman kereta *Car loan instalment*	1450
Bayaran tol dan petrol *Toll and petrol payment*	400
Bil utiliti *Utility bills*	300
Premium insurans *Insurance premium*	250

Jadual 4 / *Table* 4

Hitung jumlah perbelanjaan tetap bulanan Rahim.
Calculate the total monthly fixed expenses of Rahim.

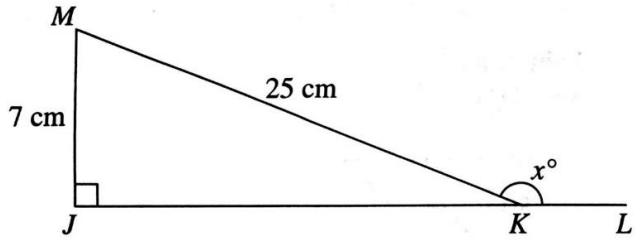
A RM1 300

B RM1 450

C RM1 550

D RM1 700

34. Dalam Rajah 13, *JKL* ialah garis lurus.
In Diagram 13, *JKL is a straight line.*



Rajah 13 / *Diagram* 13

Cari nilai kos $x°$.
Find the value of cos $x°$.

A $\frac{24}{25}$

B $\frac{7}{24}$

C $-\frac{7}{24}$

D $-\frac{24}{25}$

35. Encik Jinu menginsuranskan rumahnya pada jumlah insurans yang harus dibeli iaitu sebanyak RM360 000. Nilai boleh insurans bagi rumahnya ialah RM450 000. Polisi insurans kebakaran yang dibelinya mempunyai deduktibel RM3 600. Encik Jinu mengalami kerugian menyeluruh akibat suatu kebakaran rumah. Antara berikut, yang manakah benar?
Encik Jinu insured his house at the amount of required insurance, that is RM360 000. *The insurable value of his house is* RM450 000. *The fire insurance policy that he bought has a deductible of* RM3 600. *Encik Jinu suffered a total loss in a house fire. Which of the following is true?*

	Peruntukan ko-insurans *Co-insunce provision*	Bayaran pampasan yang diterima *Amount of compensation received*
A	80%	RM356 400
B	80%	RM360 000
C	90%	RM401 760
D	90%	RM405 000

36. Jadual 5 menunjukkan kadar premium tahunan bagi setiap RM1 000 nilai muka insurans sementara boleh baharu tahunan yang ditawarkan oleh sebuah syarikat insurans.
Table 5 *shows the annual premium rate schedule per* RM1 000 *face value of a yearly renewable term insurance offered by an insurance company.*

Umur Age	Perempuan (RM) *Female* (RM)	
	Bukan perokok *Non-smoker*	Perokok *Smoker*
35	1.44	1.77
36	1.49	1.83
37	1.56	1.93
38	1.64	2.04

Jadual 5 / *Table* 5

Puan Tan berusia 37 tahun dan dia bukan perokok. Dia ingin membeli polisi insurans tersebut yang bernilai RM280 000. Hitung premium tahunan Puan Tan.
Mrs Tan is 37 *years old and she is a non-smoker. She wants to buy an insurance policy worth* RM280 000. *Calculate the annual premium of Mrs Tan.*

A RM403.20
B RM423.60
C RM436.80
D RM540.40

37. Diberi $\begin{bmatrix}4 & 3\\6 & 2\end{bmatrix} + q\begin{bmatrix}2 & 0\\2 & -3\end{bmatrix} - \begin{bmatrix}-4 & 2\\-3 & 6\end{bmatrix} = \begin{bmatrix}14 & 1\\15 & -13\end{bmatrix}$, cari nilai q.
Given $\begin{bmatrix}4 & 3\\6 & 2\end{bmatrix} + q\begin{bmatrix}2 & 0\\2 & -3\end{bmatrix} - \begin{bmatrix}-4 & 2\\-3 & 6\end{bmatrix} = \begin{bmatrix}14 & 1\\15 & -13\end{bmatrix}$, *find the value of* q.

A 1
B 2
C 3
D 4

38. Diberi bahawa $\begin{bmatrix}2 & 3\\4 & -1\end{bmatrix}\begin{bmatrix}5\\-m\end{bmatrix} = \begin{bmatrix}-m\\25\end{bmatrix}$. Hitung nilai *m*.
It is given that $\begin{bmatrix}2 & 3\\4 & -1\end{bmatrix}\begin{bmatrix}5\\-m\end{bmatrix} = \begin{bmatrix}-m\\25\end{bmatrix}$. *Calculate the value of m.*

A -5
B -3
C 3
D 5

[Lihat halaman sebelah

39. Diberi bahawa *p* berubah secara songsang dengan punca kuasa dua *q* dan *p* = 3 apabila *q* = 100. Ungkapkan *p* dalam sebutan *q*.
It is given that p varies inversely as the square root of q and p=3 *when q*=100. *Express p in terms of q.*

A $p = 30\sqrt{q}$

B $p = \frac{3}{10}\sqrt{q}$

C $p = \frac{30}{\sqrt{q}}$

D $p = \frac{3}{\sqrt{q}}$

40. Tinggi bagi sebuah kon berubah secara langsung dengan isi padunya dan secara songsang dengan kuasa dua jejarinya. Diberi bahawa tinggi kon itu ialah 3 cm apabila isi padunya ialah 6.16 cm^3 dan jejarinya ialah 1.4 cm. Hitung jejari, dalam cm, kon yang mempunyai tinggi 9 cm dan isi padu 115.5 cm^3.
The height of a cone varies directly as its volume and inversely as the square of its radius. It is given that the height of the cone is 3 cm *when its volume is* 6.16 cm^3 *and its radius is* 1.4 cm. *Calculate the radius, in* cm, *of a cone that has height of* 9 cm *and a volume of* 115.5cm^3.

A 0.08

B 3.5

C 11

D 12.26

KERTAS SOALAN TAMAT