

SIJIL PELAJARAN MALAYSIA (SET 1)

MATEMATIK

Kertas 1

1449/1

$1\frac{1}{2}$ jam

Satu jam tiga puluh minit

JANGAN BUKA KERTAS PEPERIKSAAN INI SEHINGGA DIBERITAHU

1. *Kertas peperiksaan ini adalah dalam dwibahasa.*
2. *Soalan dalam Bahasa Melayu mendahului soalan yang sepadan dalam Bahasa Inggeris.*
3. *Calon dikehendaki membaca maklumat di halaman belakang kertas peperiksaan ini.*

Kertas peperiksaan ini mengandungi 25 halaman bercetak.

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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 ones commonly used.

NUMBER 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 $(a)^{\frac{m}{n}} = (a^m)^{\frac{1}{n}}$
- 5 Faedah mudah / *Simple interest*, $I = Prt$
- 6 Faedah kompaun / *Compound Interest*, $MV = P\left(1 + \frac{r}{n}\right)^m$
- 7 Jumlah bayaran balik / *Total repayment*, $A = P + Prt$

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

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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 = πr^2
Area of circle = πr^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-layang = $\frac{1}{2} \times$ hasil darab panjang dua pepenjuru
Area of kite = $\frac{1}{2} \times$ products 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 = $2\pi r^2 + 2\pi rh$
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 = luas keratan rentas $\times$ tinggi
Volume of prism = area of cross section $\times$ height
- 13 Isi padu silinder = $\pi r^2 h$
Volume of cylinder = $\pi r^2 h$

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- 14 Isi padu kon = $\frac{1}{3} \times \pi r^2 h$
Volume of cone = $\frac{1}{3} \times \pi r^2 h$
- 15 Isi padu sfera = $\frac{4}{3} \times \pi r^3$
Volume of sphere = $\frac{4}{3} \times \pi r^3$
- 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 = $k^2 \times \text{area of object}$

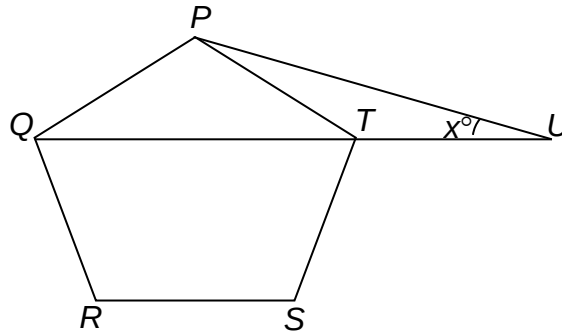
STATISTIK DAN KEBARANGKALIAN STATISTICS AND PROBABILITY

- 1 Min / Mean, $\bar{x} = \frac{\sum x}{N}$
- 2 Min / Mean, $\bar{x} = \frac{\sum fx}{\sum f}$
- 3 Varians / Variance, $\sigma^2 = \frac{\sum (x - \bar{x})^2}{N} = \frac{\sum x^2}{N} - \bar{x}^2$
- 4 Varians / Variance, $\sigma^2 = \frac{\sum f(x - \bar{x})^2}{\sum f} = \frac{\sum fx^2}{\sum f} - \bar{x}^2$
- 5 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{N}} = \sqrt{\frac{\sum x^2}{N} - \bar{x}^2}$
- 6 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\sum f(x - \bar{x})^2}{\sum f}} = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2}$
- 7 $P(A) = \frac{n(A)}{n(S)}$
- 8 $P(A') = 1 - P(A)$

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- 1 Rajah 1 menunjukkan $PQRST$ ialah sebuah pentagon sekata dan QTU ialah garis lurus.

Diagram 1 shows $PQRST$ is a regular pentagon and QTU is a straight line.

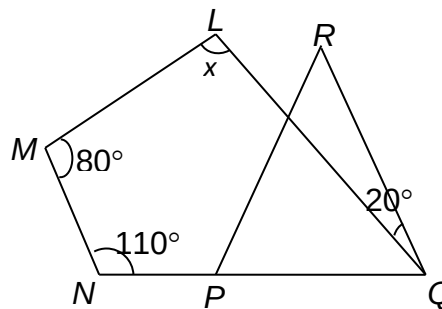


Rajah 1
Diagram 1

Diberi $PT = TU$, cari nilai x .

Given $PT = TU$, find the value of x .

- A 12
B 18
C 27
D 36
- 2 Dalam Rajah 2, PQR ialah segi tiga sama sisi dan NPQ ialah garis lurus.
In Diagram 2, PQR is an equilateral triangle and NPQ is a straight line.



Rajah 2
Diagram 2

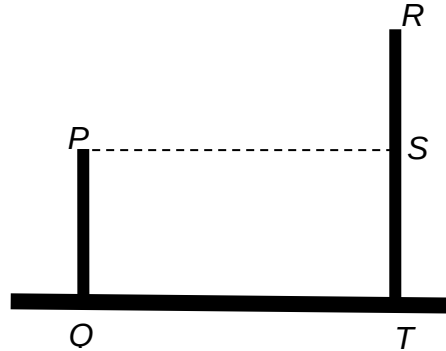
Cari nilai x .

Find the value of x .

- A 110°
B 120°
C 130°
D 140°

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- 3 Dalam Rajah 3, PQ dan RST ialah dua batang tiang tegak pada satah mengufuk.
In Diagram 3, PQ and RST are two vertical poles on a horizontal plane.



Rajah 3
 Diagram 3

Nyatakan sudut tunduk titik Q dari titik S .
State the angle of depression of point Q from point S .

- A $\angle TSQ$
 B $\angle TQS$
 C $\angle PQS$
 D $\angle PSQ$
- 4 Ungkapkan $\frac{1}{4k} - \frac{7+k}{12k^2}$ sebagai satu pecahan tunggal dalam bentuk termudah.

Express $\frac{1}{4k} - \frac{7+k}{12k^2}$ as a single fraction in its simplest form.

- A $\frac{k-6}{12k^2}$
 B $\frac{k-7}{12k^2}$
 C $\frac{2k-6}{12k^2}$
 D $\frac{2k-7}{12k^2}$
- 5 $(3x - y)^2 - y(x + 2y) =$
- A $9x^2 - 5xy - y^2$
 B $9x^2 - 7xy - y^2$
 C $9x^2 - 7xy + y^2$
 D $9x^2 - 7xy - 3y^2$

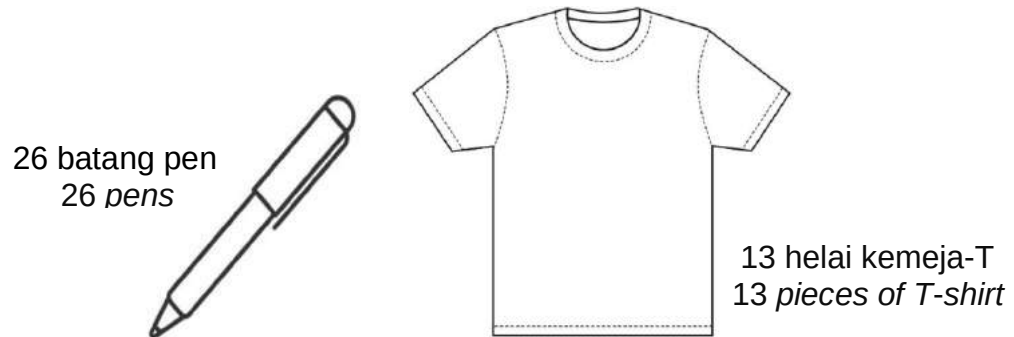
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- 6 Rajah 6 menunjukkan bilangan pen dan bilangan kemeja-T yang dibeli oleh Rahman. Harga sebatang pen ialah RMx dan harga sehelai kemeja -T ialah RMy.
Jumlah harga barangan yang perlu dibayar oleh Rahman ialah RM260.

Diagram 6 shows the number of pens and number of T-shirts bought by Rahman.

The price of a pen is RMx and the price of a T-shirt is RMy.

The total price of the items that Rahman needs to pay is RM260.



Rajah 6
Diagram 6

Tuliskan persamaan bagi harga kemeja – T dalam sebutan harga pen.
Write the equation for the price of a T-shirt in terms of the price of a pen.

- A $y = 2x - 20$
B $y = 10 - 2x$
C $y = 2x + 20$
D $y = 20 - 2x$

- 7 Selesaikan:
Solve:

$$\frac{x}{3} + 3 = 8 - 2x$$

- A $\frac{7}{15}$
B $\frac{2}{5}$
C $\frac{15}{7}$
D $\frac{5}{2}$

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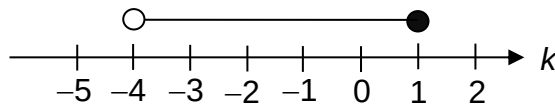
- 8 Ungkapkan $30y^2 - 3y - 6$ dalam bentuk termudah.
Express $30y^2 - 3y - 6$ in its simplest form.

- A $(6y - 3)(5y + 2)$
- B $(15y + 6)(2y - 1)$
- C $3(2y + 1)(5y - 2)$
- D $3(2y - 1)(5y + 2)$

- 9 Selesaikan :
Solve :

$$\frac{11-x}{4} \geq 2 + 5x$$

- A $x \leq \frac{1}{7}$
 - B $x \geq \frac{1}{7}$
 - C $x \leq 7$
 - D $x \geq 7$
- 10 Rajah 10 menunjukkan suatu garis nombor.
Diagram 10 shows a number line.



Rajah 10
Diagram 10

Ketaksamaan linear serentak yang mewakili garis nombor ialah
The simultaneous linear inequalities that represent the number line is

- A $\frac{1}{2}k > -2$, $3 - 2k \geq 1$
- B $\frac{1}{2}k \geq -2$, $3 - 2k > 1$
- C $\frac{1}{2}k \leq -2$, $3 - 2k < 1$
- D $\frac{1}{2}k < -2$, $3 - 2k \leq 1$

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- 11** Puan Atina membuat pinjaman peribadi sebanyak RM60 000 daripada Bank Amanah dengan kadar faedah 6% setahun. Tempoh bayaran balik adalah selama 7 tahun. Hitung ansuran bulanan yang perlu dibayar oleh Puan Atina.

Madam Atina made a personal loan of RM60 000 from Bank Amanah with an interest rate of 6% per annum. The period to pay back the loan is 7 years. Calculate the monthly instalment payable by Madam Atina.

- A RM714.29
- B RM757.14
- C RM1 014.29
- D RM1 217.43

- 12** Jadual 12 menunjukkan pembelian saham oleh Rafiqah dengan tiga harga yang berbeza.

Table 12 shows the purchase of shares by Rafiqah with three different prices.

Unit <i>Units</i>	4 500	5 000	8 000
Harga Seunit <i>Price per unit</i>	RM1.32	RM1.40	RM1.38

Jadual 12
Table 12

Hitung kos purata seunit saham yang dibeli oleh Rafiqah.
Calculate the average cost per unit of the shares purchased by Rafiqah.

- A RM1.28
- B RM1.33
- C RM1.35
- D RM1.37

- 13** Suatu lantai yang berbentuk segi empat tepat mempunyai ukuran lebar 3 600 cm dan panjang 4 800 cm. Lantai itu akan ditutup dengan jubin yang berbentuk segi empat sama bersisi 40 cm.

A rectangular floor has a width of 3 600 cm and a length of 4 800 cm. The floor will be covered with square tiles of side 40 cm.

Hitung bilangan jubin yang diperlukan untuk menutup keseluruhan lantai itu.
Calculate the number of tiles required to cover the whole floor.

- A 1.08×10^4
- B 4.32×10^4
- C 1.08×10^5
- D 4.32×10^5

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- 14 Suatu pelan bagi sebuah kolam renang yang berbentuk segi empat tepat dengan panjang 20 m dan lebar 15 m dilukis dengan menggunakan skala 1 : 500.

A plan of a rectangular swimming pool of length 20 m and width 15 m is drawn by using the scale of 1 : 500.

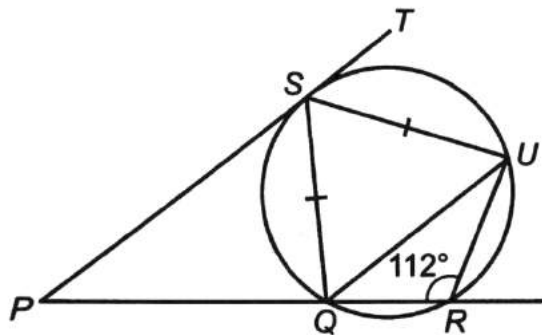
Hitung luas dalam cm^2 , pelan kolam renang itu.

Calculate the area in cm^2 of the plan of the swimming pool.

- A 12
- B 60
- C 3 000
- D 6 000

- 15 Rajah 15 menunjukkan sebuah bulatan. Diberi PST ialah tangen kepada bulatan pada titik S . $SURQ$ ialah sebuah sisi empat kitaran. Diberi $QS = SU$ dan PQR ialah garis lurus.

Diagram 15 shows a circle. Given that PST is a tangent to a circle at point S . $SURQ$ is a cyclic quadrilateral. Given that $QS = SU$ and PQR is a straight line.



Rajah 15
Diagram 15

Hitung nilai $\angle TSU$.

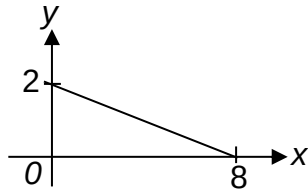
Find the value of $\angle TSU$.

- A 34°
- B 48°
- C 56°
- D 62°

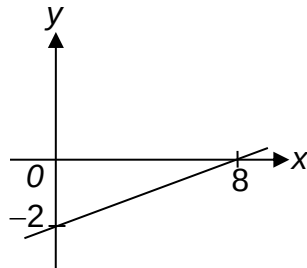
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- 16 Antara yang berikut, graf manakah yang mewakili $4y + x = 8$?
Which of the following graphs represents $4y + x = 8$?

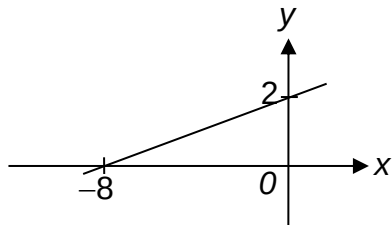
A



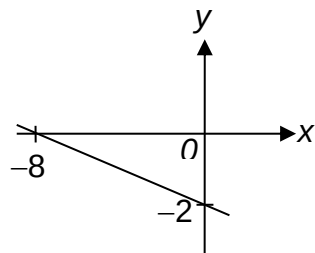
B



C

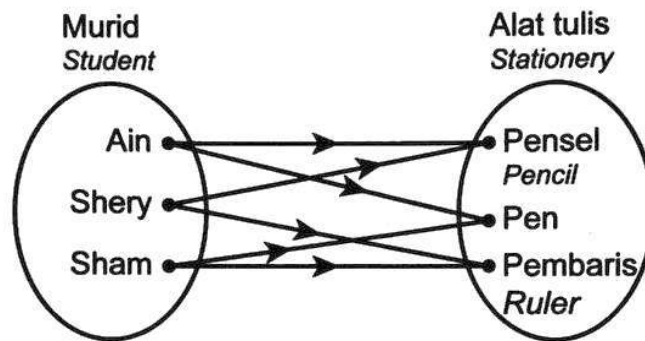


D



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- 17 Rajah 17 menunjukkan jenis hubungan yang **bukan** fungsi.
*Diagram 17 shows a type of relation that is **not** a function.*



Rajah 17
 Diagram 17

Nyatakan jenis hubungan tersebut.
State the type of relation.

- A Hubungan satu kepada satu
One-to-one relation
 - B Hubungan satu kepada banyak
One-to-many relation
 - C Hubungan banyak kepada satu
Many-to-one relation
 - D Hubungan banyak kepada banyak
Many-to-many relation
- 18 Nani perlu menghadiri suatu mesyuarat penting. Dia bertolak dari rumah pada jam 5:30 pagi. Jika dia sampai ke destinasi pada pukul 10:00 pagi dengan kelajuan 80 km/j, hitung jarak, dalam km, perjalanan Nani.

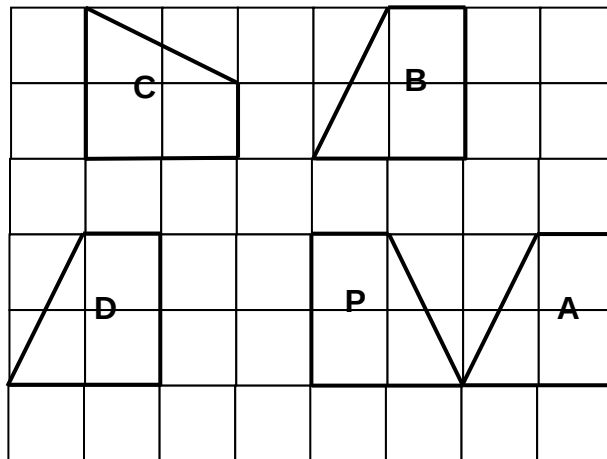
Nani need to attend an important meeting. She left her house at 5:30 a.m. If she reach her destination at 10:00 a.m. with a speed of 80 km/h, calculate the distance, in km, travelled by Nani.

- A 36.0
- B 37.6
- C 360
- D 376

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- 19 Rajah 19 menunjukkan lima trapezium yang dilukis pada grid segi empat sama.

Diagram 19 shows five trapezium drawn on square grids.



Rajah 19
Diagram 19

Antara trapezium **A**, **B**, **C** dan **D**, yang manakah **bukan** imej bagi trapezium **P** di bawah satu pantulan pada garis pantulan tertentu?

*Which of the trapezium **A**, **B**, **C** or **D** is **not** the image of trapezium **P** under a reflection in a particular line of reflection?*

- 20 Diberi suatu set data 2.1, 3.2, p , 5.5 dan 6.2. Jika min selepas setiap nombor tersebut didarab dengan 4 ialah 17.2, hitung nilai p .

Given a set of data 2.1, 3.2, p , 5.5 and 6.2. If the mean after each of the number multiplied by 4 is 17.2, calculate the value of p .

- A 0.2
- B 4.3
- C 4.5
- D 21.5

- 21 Diberi punca-punca bagi graf fungsi kuadratik $f(x) = -x^2 + 2x + 8$ ialah -2 dan 4 . Cari koordinat titik maksimum.

Given that the roots of the graph of the quadratic function $f(x) = -x^2 + 2x + 8$ are -2 and 4 . Find the coordinates of the maximum point.

- A $(-1, 11)$
- B $(-1, 9)$
- C $(1, 9)$
- D $(1, 11)$

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- 22 Rajah 22 menunjukkan satu implikasi.

Diagram 22 shows an implication.

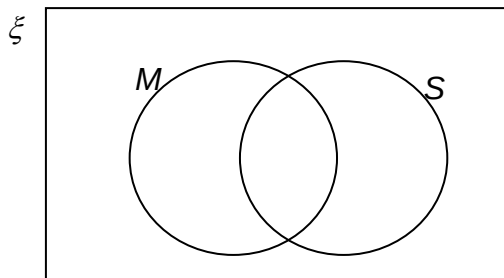
Jika $m = -7$, maka $m^2 = 49$ If $m = -7$, then $m^2 = 49$

Rajah 22
Diagram 22

Nyatakan antejadian bagi implikasi ini.

State the antecedent for this implication.

- A $m = -7$
 B $m = 7$
 C $m^2 = -49$
 D $m^2 = 49$
- 23 Rajah 23 menunjukkan gambar rajah Venn dengan set semesta, $\xi = \{\text{murid Tingkatan 3}\}$, set $M = \{\text{murid yang minat Matematik}\}$ dan set $S = \{\text{murid yang minat Sains}\}$.
 Diagram 23 shows a Venn diagram with universal set, $\xi = \{\text{Form 3 pupil}\}$, set $M = \{\text{pupils who like Mathematics}\}$ and set $S = \{\text{pupils who like Science}\}$.



Rajah 23
Diagram 23

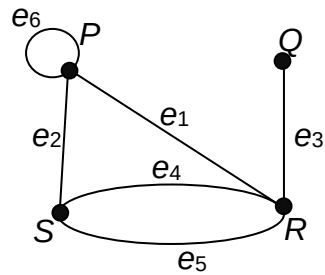
Diberi $n(M) = 120$, $n(S) = 85$, $n(M \cap S) = 36$ dan bilangan murid yang tidak meminati dua mata pelajaran itu ialah 15 orang. Hitung jumlah murid Tingkatan 3.

Given that $n(M) = 120$, $n(S) = 85$, $n(M \cap S) = 36$ and the number of pupils who do not like the two subjects is 15. Calculate the total number of Form 3 pupils.

- A 148
 B 184
 C 220
 D 256

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- 24 Rajah 24 menunjukkan satu graf G .
 Diagram 24 shows a graph G .



Rajah 24
 Diagram 24

Antara berikut, yang manakah **bukan** subgraph bagi graf G ?
 Which of the following is **not** a subgraph of graph G ?

- A
- B
- C
- D

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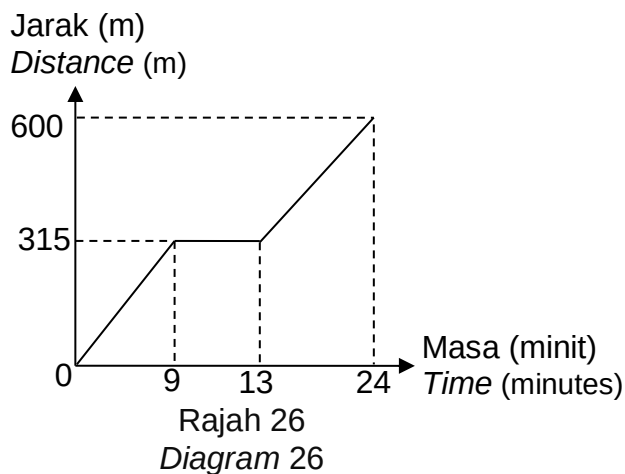
- 25 Nombor manakah mempunyai digit 1 dengan nilai terbesar dalam asas sepuluh?

Which number has a digit 1 with the largest value in base ten?

- A 1205_6
- B 1623_7
- C 2135_8
- D 3178_9

- 26 Rajah 26 menunjukkan graf jarak-masa bagi pergerakan Anna dari rumahnya ke sebuah pejabat pos dalam tempoh 24 minit.

Diagram 26 shows the distance-time graph for the movement of Anna from her house to a post office for 24 minutes.



Antara berikut, yang manakah **tidak benar** tentang perjalanan Anna?

*Which of the following is **not true** about Anna's journey?*

- A Jarak di antara rumahnya dan pejabat pos itu ialah 600 m.
The distance between her house and the post office is 600 m.
- B Anna bergerak dengan laju 35 m min^{-1} dalam 9 minit pertama.
Anna travelled at a speed of 35 m min^{-1} in the first 9 minutes.
- C Anna berhenti selama 4 minit dalam perjalanannya.
Anna stopped for 4 minutes during her journey.
- D Purata laju bagi keseluruhan perjalanan Anna ialah 50 m min^{-1} .
The average speed for Anna's whole is 50 m min^{-1} .

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- 27** Jadual 27 menunjukkan suatu set data.
Table 27 shows a set of data.

Umur (tahun) Age (years)	12	13	14	15	16	17
Bilangan murid Number of pupils	10	15	18	17	15	5

Jadual 27
 Table 27

Hitung julat antara kuartil.
Calculate the interquartile range.

- A 2
 B 3
 C 10
 D 14
- 28** Pendapatan aktif dan pendapatan pasif Cik Mimi masing-masing ialah RM3 250 dan RM1 860, manakala perbelanjaan tetap dan perbelanjaan tidak tetap masing-masing ialah RM2 820 dan RM950.

Pada bulan kedua, pendapatan aktif Cik Mimi kekal sama tetapi pendapatan pasif berkurang sebanyak 20%. Pada masa yang sama, perbelanjaan tetap dan perbelanjaan tidak tetapnya masing-masing meningkat sebanyak RM320 dan RM400.

An active income and a passive income of Cik Mimi are RM3 250 and RM1 860 respectively while her fixed expenses are variable expenses are RM2 820 and RM950 respectively.

For the second month, Cik Mimi's active income is remained the same and her passive income decreases by 20%. At the same time, her fixed expenses and variable expenses increase RM320 and RM400 respectively.

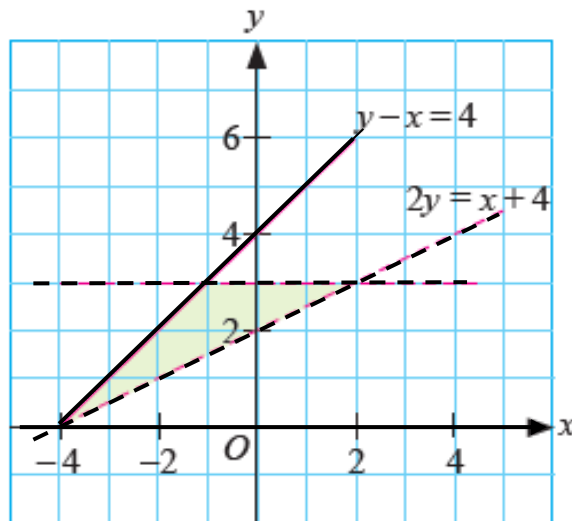
Hitung aliran tunai bulanan Cik Mimi pada bulan kedua.
Calculate Cik Mimi's monthly cash flow of the second month.

- A RM178
 B RM248
 C RM278
 D RM348

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- 29 Rajah 29 menunjukkan rantau berlorek yang dibatasi oleh tiga ketaksamaan linear.

Diagram 29 shows the shaded region bounded by three inequalities.



Rajah 29
Diagram 29

Manakah antara ketaksamaan linear berikut yang **tidak** memuaskan rantau berlorek dalam Rajah 29.

Which of the following linear inequality does **not** satisfy the shaded region in Diagram 29.

- A $x < 3$
 B $y < 3$
 C $y - x \leq 4$
 D $2y > x + 4$
- 30 Kotak M dan kotak N masing-masing mengandungi kad berlabel dengan nombor 1, 3, 6 dan 9 dan kad berlabel dengan huruf X, Y dan Z.
 Box M and box N contain cards labelled with numbers 1, 3, 6 and 9 and letters X, Y and Z respectively.
 Sekeping kad dipilih secara rawak dari setiap kotak itu, hitung kebarangkalian mendapat faktor bagi 9 dan huruf X.
 A card is chosen at random from each box, calculate the probability of getting a factor of 9 and a letter X.

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

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- 31** Jadual 31 menunjukkan dua set nilai bagi pemboleh ubah X , Y dan Z yang memuaskan $Y \propto XZ$.

Table 31 shows two set of values of variables X , Y and Z which satisfy $Y \propto XZ$.

X	Y	Z
6	36	9
4	m	12

Jadual 31

Table 31

Hitung nilai m .

Calculate the value of m .

- A 20
B 24
C 32
D 48
- 32** Diberi bahawa y berubah secara songsang dengan kuasa dua x dan $y = 3$ apabila $x = 4$.

It is given that y varies inversely as the square of x dan $y = 3$ when $x = 4$.

Cari hubungan antara x dan y .

Find the relation between x and y .

A $y = \frac{12}{\sqrt{x}}$

B $y = \frac{48}{\sqrt{x}}$

C $y = \frac{12}{x^2}$

D $y = \frac{48}{x^2}$

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SULIT

33 $\begin{pmatrix} -2 & 3 \\ 5 & 4 \end{pmatrix} \begin{pmatrix} 6 & 7 \\ 0 & -1 \end{pmatrix} =$

A $\begin{pmatrix} -18 & -17 \\ 34 & 31 \end{pmatrix}$

B $\begin{pmatrix} -12 & -17 \\ 30 & 31 \end{pmatrix}$

C $\begin{pmatrix} -12 & 21 \\ 0 & -4 \end{pmatrix}$

D $\begin{pmatrix} 4 & 10 \\ 5 & 3 \end{pmatrix}$

- 34 Danny menjual dua model peti sejuk P dan Q . Dia telah menjual 15 buah peti sejuk dengan harga RM15 300. Harga seunit peti sejuk model P dan model Q masing-masing ialah RM1 200 dan RM900.
Danny sells two models of refrigerators for P and Q . He has sold 15 refrigerator for RM15 300. The price per unit of refrigerator model P and model Q is RM1 200 and RM900 respectively.

Cari bilangan unit model Q yang dijualnya.
Find the number of units of model Q he sells.

- A 6
- B 7
- C 8
- D 9
- 35 Nini mempunyai polisi insurans perubatan utama dengan peruntukan deduktibel sebanyak RM500 dan fasal penyertaan peratusan ko-insurans 75/25 dalam polisinya.
Nini has a primary medical insurance policy with a deductible provision of RM500 and a co-insurance percentage participation clause of 75/25 in her policy.

Hitung bayaran kos, dalam RM yang ditanggung oleh Nini sendiri jika kos perubatan yang dilindungi polisinya berjumlah RM36 000.

Calculate the payment, in RM borne by Nini herself if the medical costs covered by her policy amount is RM36 000.

- A 8 875
- B 9 375
- C 26 500
- D 26 625

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- 36** Jadual 36 menunjukkan harga makanan dan minuman di sebuah restoran.
Table 36 shows the prices of the food and drinks in a restaurant.
 Norman makan malam di restoran itu. Dia telah makan sepinggan nasi goreng, dua ketul ayam goreng dan secawan kopi.
Norman had dinner at the restaurant. He had eaten a plate of fried rice, two pieces of fried chicken and a cup of coffee.

Makanan dan minuman <i>Food and drinks</i>	Harga <i>Price</i>
Nasi goreng <i>Fried rice</i>	RM8.00/ pinggan RM 8.00/ <i>plate</i>
Ayam goreng <i>Fried chicken</i>	RM5.00/ ketul RM5.00/ <i>piece</i>
Kopi <i>coffee</i>	RM3.00/ cawan RM3.00/ <i>cup</i>

Jadual 36
 Table 36

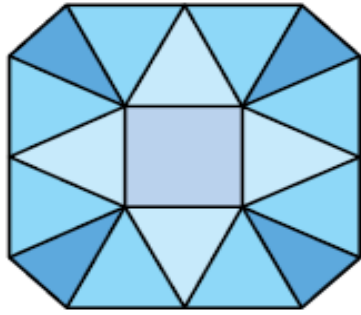
Diberi bahawa restoran itu mengenakan cukai perkhidmatan 6 % .
 Hitung bil Norman.
Given that the restaurant charges 6 % service tax.
Calculate Norman's bill.

- A 16.00
- B 16.96
- C 21.00
- D 22.26

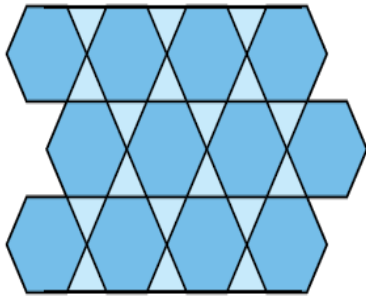
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- 37 Bentuk manakah yang **bukan** teselasi?
Which shape is **not** a tessellation?

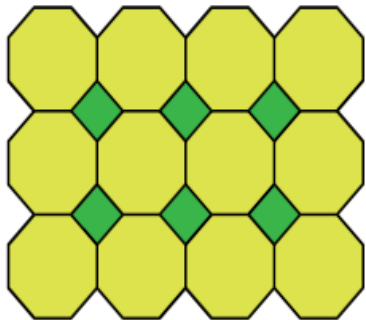
A



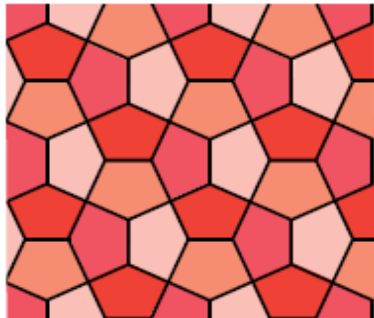
B



C



D



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- 38 Jadual 38 menunjukkan tempoh masa, dalam jam yang diambil oleh pelanggan untuk membeli barang di sebuah pasar raya.
Table 38 shows the time, in hours, taken by customers to purchase goods in a supermarket.

Masa (jam) <i>Time (hours)</i>	Bilangan pelanggan <i>Number of customers</i>
0.5 - 0.9	6
1.0 - 1.4	16
1.5 - 1.9	32
2.0 - 2.4	16
2.5 - 2.9	10

Jadual 38
Table 38

Manakah pernyataan berikut adalah **palsu**?
*Which of the following statements is **false**?*

- A Min masa ialah 1.75 jam.
Mean time is 1.75 hours.
 - B Julat masa ialah 2 jam
Time range is 2 hours.
 - C Kuartil ketiga ialah 1.7 jam.
Third quartile is 1.7 hours.
 - D Sisihan piawai ialah 0.55 jam.
Standard Deviation is 0.55 hours.
- 39 Rajah 39 menunjukkan sebuah jam loceng.
Diagram 39 shows an alarm clock.



Rajah 39
Diagram 39

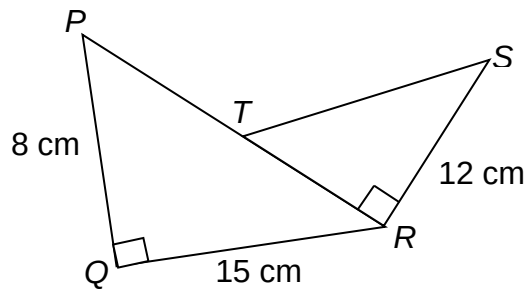
Hitung sudut yang dicangkum oleh jam minit jika jarum minit itu diputarakan lawan arah jam dari nombor 3 ke nombor 10.

Calculate the angle subtended by the minute hand if the minute hand is rotated anticlockwise from number 3 to number 10.

- A 25°
- B 150°
- C 210°
- D 335°

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- 40 Dalam Rajah 40, PQR dan RST ialah segi tiga bersudut tegak.
In Diagram 40, PQR and RST are right-angled triangles.



Rajah 40
 Diagram 40

Diberi $PT = RS$. Cari nilai $\tan \angle PTS$.
Given that $PT = RS$. Find the value of $\tan \angle PTS$.

- A $-\frac{12}{5}$
 B $-\frac{5}{12}$
 C $\frac{5}{12}$
 D $\frac{12}{5}$

KERTAS PEPERIKSAAN TAMAT
END OF QUESTION PAPER

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MAKLUMAT UNTUK CALON
INFORMATION FOR CANDIDATES

1. Kertas peperiksaan ini adalah dalam dwibahasa. Soalan dalam bahasa Melayu mendahului soalan yang sepadan dalam Bahasa Inggeris.
This question paper is bilingual. Question in Malay language precede the corresponding question in the English language.
2. Kertas peperiksaan ini mengandungi **40** soalan.
*This question paper consists of **40** questions.*
3. Jawab **semua** soalan.
*Answer **all** questions.*
4. Jawab setiap soalan dengan menghitamkan ruangan yang betul pada kertas jawapan objektif.
Answer each question by blackening the correct space on the objective answer sheet.
5. Hitamkan **satu** ruangan sahaja bagi setiap soalan.
*Blacken only **one** space for each question.*
6. Sekiranya anda hendak menukar jawapan, padamkan tanda yang telah dibuat. Kemudian hitamkan jawapan yang baharu.
If you wish to change your answer, erase the blackened mark that you have done. Then blacken the space for the new answer.
7. Rajah yang mengiringi soalan tidak dilukis mengikut skala kecuali dinyatakan.
The diagrams in the questions provided are not drawn to scale unless stated.
8. Satu senarai rumus disediakan di halaman 2 hingga 4.
A list of formulae is provided on the pages 2 to 4.
9. Anda dibenarkan menggunakan kalkulator saintifik.
You may use a scientific calculator.

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