

NAMA: TINGKATAN:



MODUL JAWAB UNTUK JAYA 2023



**SIJIL PELAJARAN MALAYSIA
MATEMATIK
Kertas 1 Set 1**

1449/1

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

Satu jam tiga puluh minit

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

Arahan: Kertas soalan ini mengandungi **40** soalan. Jawab **semua** soalan. Setiap jawapan diikuti dengan empat pilihan jawapan, **A, B, C** dan **D**. Bagi setiap soalan, pilih satu jawapan sahaja. Penggunaan kalkulator yang tidak boleh diprogramkan adalah dibenarkan.

Instructions: This question paper consists of **40** questions. Answer **all** questions. Each question is followed by four choices of answers, **A, B, C** and **D**. For each question, choose one answer only. The use of non-programmable calculators is allowed.

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.

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

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 $m = -\frac{\text{pintasan-y}}{\text{pintasan-x}}$
- $m = -\frac{\text{y-intercept}}{\text{x-intercept}}$
- 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*
 $= (n - 2) \times 180^\circ$
- 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 Panjang lengkok = $\frac{\theta}{360^\circ} \times 2\pi r$
 $\frac{\text{Arc length}}{2\pi r} = \frac{\theta}{360^\circ}$
- 6 Luas sektor = $\frac{\theta}{360^\circ} \times \pi r^2$
 $\frac{\text{Area of sector}}{\pi r^2} = \frac{\theta}{360^\circ}$
- 7 Luas layang-layang = $\frac{1}{2} \times$ hasil darab panjang dua pepenjuru
Area of kite = $\frac{1}{2} \times$ 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 = $2\pi r^2 + 2\pi rh$
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 = $\pi j^2 t$
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, $\bar{x} = \frac{\sum fx}{f}$
- 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 $P(A') = 1 - P(A)$

Jawab semua soalan.
Answer all questions.

1 Permudahkan

Simplify

$$(m^2)^4 \div m^2$$

A m^4

B m^6

C m^7

D m^8

2 Bundarkan 0.1534 betul kepada dua angka bererti.

Round off 0.1534 correct to two significant figures.

A 0.15

B 0.1500

C 0.1530

D 0.1600

3 $4.3 \times 10^{13} + 3.2 \times 10^{14} =$

A 3.63×10^{14}

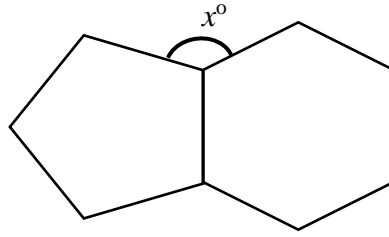
B 3.63×10^{13}

C 7.50×10^{14}

D 7.50×10^{13}

- 4 Antara berikut, yang manakah mempunyai nilai terkecil?
Which of the following has the smallest value?
- A 56_8
 - B 105_7
 - C 1021_3
 - D 101110_2
- 5 Antara yang berikut, yang manakah kekurangan penggunaan kad kredit?
Which of the following is the disadvantage of using credit card?
- A Kaedah pembayaran yang mudah
Easy payment method
 - B Boleh menikmati ganjaran dalam rebat tunai atau penebusan mata
Can enjoy rewards in cash rebate or point redemption
 - C Boleh digunakan untuk membuat pembayaran menggunakan mata wang yang berbeza
Can be used to make payment using different currency
 - D Boleh dikenakan dengan pelbagai caj seperti caj bayaran lewat dan caj faedah pendahuluan wang tunai
May be subjected to various charges such as late payment charges and cash advance interest charges
- 6 Puan Noraiza menyimpan sebanyak RM6 500 dalam sebuah bank. Bank telah menawarkan kadar faedah 3% setahun dan pengkompaunan setiap 3 bulan. Hitung nilai matang simpanannya pada akhir tahun keenam.
Puan Noraiza saves RM6 500 in a bank. The bank has been offering an interest rate of 3% per annum and compounded every 3 months. Calculate the matured value of her savings at the end of the sixth year.
- A RM6 899.88
 - B RM6 900.39
 - C RM7 774.96
 - D RM7 776.69

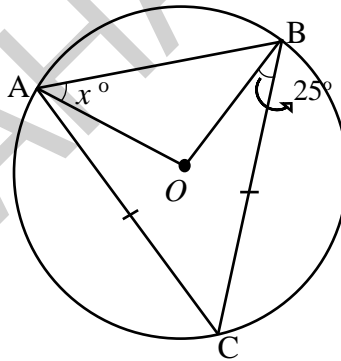
- 7 Rajah 1 menunjukkan gabungan sebuah heksagon sekata dan sebuah pentagon sekata.
Diagram 1 shows a combination of a regular hexagon and a regular pentagon.



Rajah 1
Diagram 1

Tentukan nilai x .
Determine the value of x .

- A 132°
B 145°
C 150°
D 154°
- 8 Rajah 2 menunjukkan sebuah bulatan berpusat O .
Diagram 2 shows a circle with centre O .



Rajah 2
Diagram 2

Hitung nilai x .
Calculate the value of x .

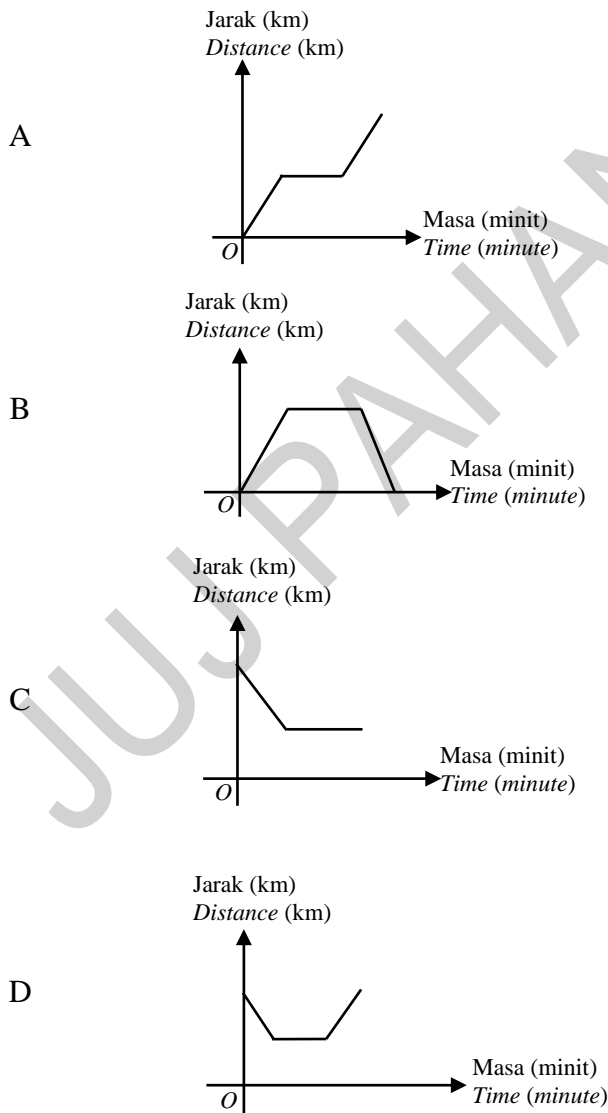
- A 40
B 45
C 50
D 55

- 9 Jadual 1 menunjukkan catatan perjalanan Tin dari rumah ke pejabatnya.
 Table 1 shows Tin's journey notes from her house to office.

Masa / Time	Catatan / Note
7:40 pagi 7:40 a.m.	Mula perjalanan Start journey
7:55 pagi 7:55 a.m.	Mengisi minyak di stesen minyak Refuel at a petrol station
8:10 pagi 8:10 a.m.	Meneruskan perjalanan Continue journey
8:40 pagi 8:40 a.m.	Tiba di pejabat Arrive at office

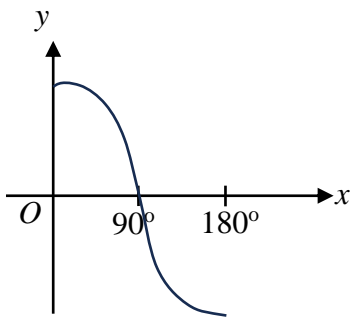
Jadual 1
Table 1

Graf manakah yang mewakili perjalanannya?
 Which graph that represent her journey?

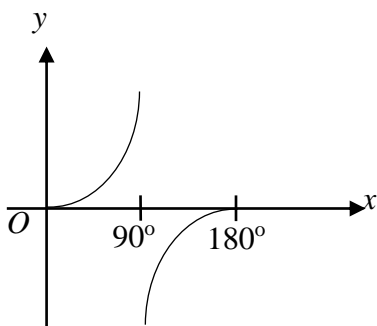


- 10 Graf yang manakah mewakili $y = \tan x$ bagi $0^\circ \leq x \leq 180^\circ$?
Which graph represents $y = \tan x$ for $0^\circ \leq x \leq 180^\circ$?

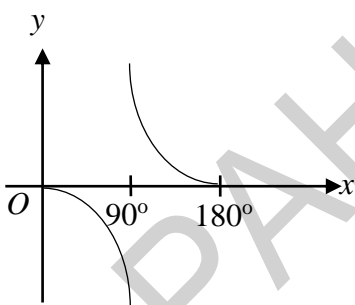
A



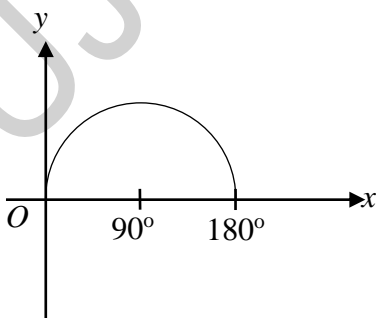
B



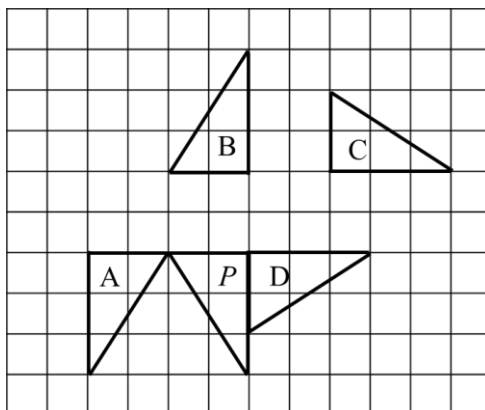
C



D



- 11 Rajah 3 menunjukkan lima buah segi tiga dilukis pada grid segi empat sama.
Diagram 3 shows five triangles are drawn on square grids.



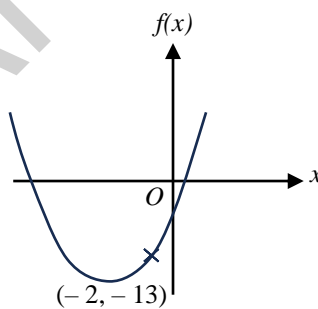
Rajah 3
Diagram 3

Antara segi tiga A, B, C dan D, segi tiga manakah **bukan** satu imej bagi P di bawah suatu pantulan?

Among the triangles A, B, C and D, which triangle is **not** an image of P under a reflection?

- 12 Rajah 4 menunjukkan satu graf fungsi kuadratik $f(x) = 2x^2 + 8x + p$. Titik $(-2, -13)$ ialah titik minimum bagi graf tersebut.

Diagram 4 shows a quadratic function of $f(x) = 2x^2 + 8x + p$. The point $(-2, -13)$ is the minimum point of the graph.



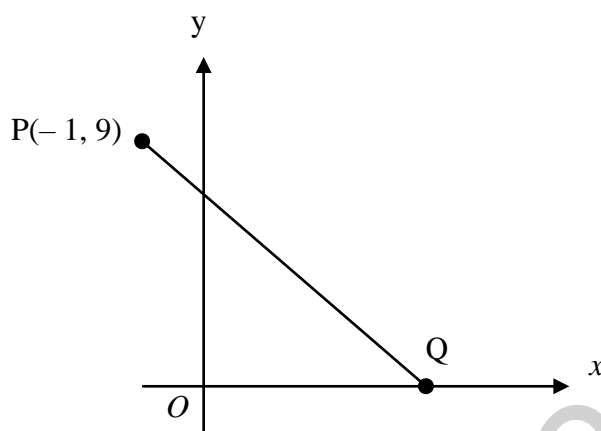
Rajah 4
Diagram 4

Cari nilai p .

Find the value of p .

- A -7
- B -5
- C -3
- D -2

- 13 Rajah 5 menunjukkan garis lurus PQ yang dilukis pada satah Cartes.
Diagram 5 shows a straight line of PQ drawn on a Cartesian plane.



Rajah 5
Diagram 5

Diberi kecerunan garis lurus PQ ialah $-\frac{3}{2}$.

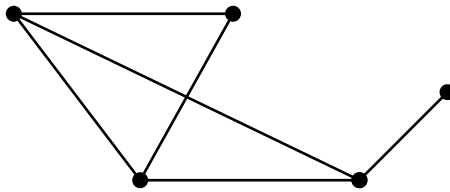
Cari pintasan $-x$.

Given that the gradient of the straight line PQ is $-\frac{3}{2}$.

Find the x -intercept.

- A 4
- B 5
- C 6
- D 8

- 14 Rajah 6 menunjukkan sebuah graf.
 Diagram 6 shows a graph.

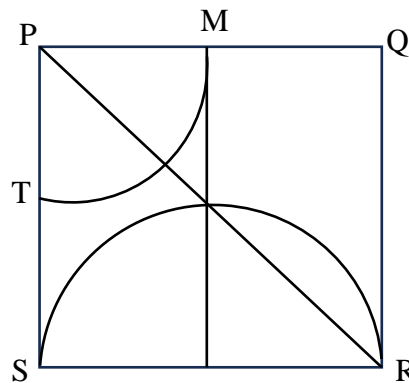


Rajah 6
 Diagram 6

Antara berikut, yang manakah **bukan** satu pokok berdasarkan graf di atas?
 Which of the following is **not** a tree based on the above graph?

- A
- B
- C
- D

- 15 Rajah 7 menunjukkan sebuah segi empat sama PQRS.
Diagram 7 shows a square PQRS.



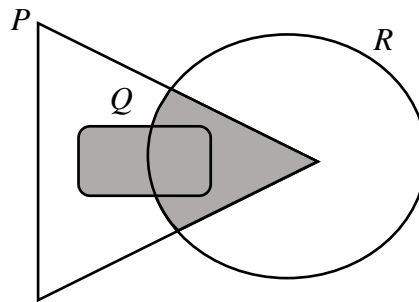
Rajah 7
Diagram 7

Antara berikut, yang manakah merupakan lokus bagi suatu titik yang bergerak dengan keadaan jaraknya adalah sentiasa sama dari titik Q dan titik S?

Which of the following is the locus of a point which moves that its distance is always equal from point Q and point S?

- A Lengkung MT
The arc MT
- B Garis lurus MN
The straight line MN
- C Lengkung SR
The arc SR
- D Garis lurus PR
The straight line PR
- 16 Diberi set R dan set S adalah dengan keadaan $R \cap S = \{3, 7\}$, $(R \cap S)' = \{2, 4, 6, 9\}$ dan $(R \cup S)' = \{9\}$. Nyatakan semua unsur bagi $R \cup S$.
It is given that set R and set S are such that $R \cap S = \{3, 7\}$, $(R \cap S)' = \{2, 4, 6, 9\}$ and $(R \cup S)' = \{9\}$. State all the elements of $R \cup S$.
- A $\{2, 3, 7\}$
- B $\{3, 4, 6, 7\}$
- C $\{2, 3, 4, 6, 7\}$
- D $\{2, 3, 4, 6, 7, 9\}$

- 17 Rajah 8 menunjukkan gambar rajah Venn bagi set P, set Q dan set R.
Diagram 8 shows a Venn diagram that represents the set P, set Q dan set R.



Rajah 8
Diagram 8

Tentukan set yang mewakili rantau berlorek.
Determine the set represented by the shaded region.

- A $P \cap (Q \cup R)$
B $(P \cap Q) \cup R$
C $(P \cup Q) \cap R$
D $P \cup (Q \cap R)$
- 18 Antara berikut, yang manakah suatu liabiliti?
Which of the following is liability?

- A Pelaburan
Investment
B Amanah saham
Unit trust
C Simpanan tetap
Fixed savings
D Hutang kad kredit
Credit card dedbt

- 19 Jadual 2 menunjukkan perbelanjaan Puan Shida.
Table 2 shows Puan Shida's expenses.

Perbelanjaan <i>Expenses</i>	RM
Premium insurans <i>Insurance premium</i>	180
Ansuran rumah <i>House instalment</i>	1250
Barangan runcit <i>Groceries</i>	160
Ansuran kereta <i>Car instalment</i>	400
Perbelanjaan perubatan <i>Medical expenses</i>	280
Pakaian <i>Clothing</i>	90

Jadual 2
 Table 2

Hitung perbelanjaan tetap Puan Shida.
Calculate the fixed expenses of Puan Shida.

- A RM1 650
 B RM1 740
 C RM1 830
 D RM1 920
- 20 Diberi bahawa P berubah secara songsang dengan kuasa dua Q dan secara langsung dengan punca kuasa dua R . Cari hubungan antara P , Q dan R .
Given that P varies inversely as the square of Q and directly as the square root of R . Find the relation between P , Q and R .

A $P \propto \frac{Q^2}{\sqrt{R}}$

B $P \propto \frac{R^2}{\sqrt{L}}$

C $P \propto \frac{\sqrt{Q}}{R^2}$

D $P \propto \frac{\sqrt{R}}{Q^2}$

- 21 Jadual 3 menunjukkan hubungan di antara tiga pembolehubah g , h dan f .
Diberi bahawa g berubah secara langsung dengan h dan berubah secara songsang dengan f .
Table 3 shows the relation between three variables g , h and f . Given that g varies directly as h and varies inversely as f .

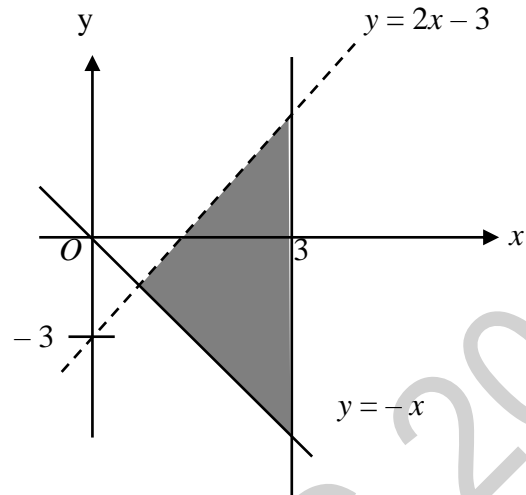
g	h	f
3	x	6
2.5	10	2

Jadual 3
Table 3

Cari nilai x .
Find the value of x .

- A 4
- B 18
- C 25
- D 36

- 22 Rajah 9 menunjukkan rantau berlorek yang memuaskan suatu sistem ketaksamaan.
Diagram 9 shows a shaded region that satisfied the inequalities system.

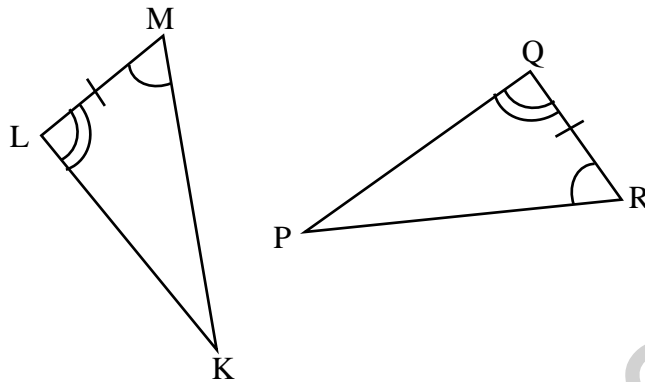


Rajah 9
Diagram 9

Antara berikut yang manakah mewakili sistem ketaksamaan berikut?
Which of the following represents the system of linear inequalities?

- A $y \geq -x, y < 2x - 3, x \leq 3$
B $y > -x, y \leq 2x - 3, x < 3$
C $y < -x, y \geq 2x - 3, x > 3$
D $y \leq -x, y > 2x - 3, x \geq 3$

- 23 Rajah 10 menunjukkan dua buah segi tiga kongruen, KLM dan PQR .
Diagram 10 shows two congruent triangles, KLM and PQR .

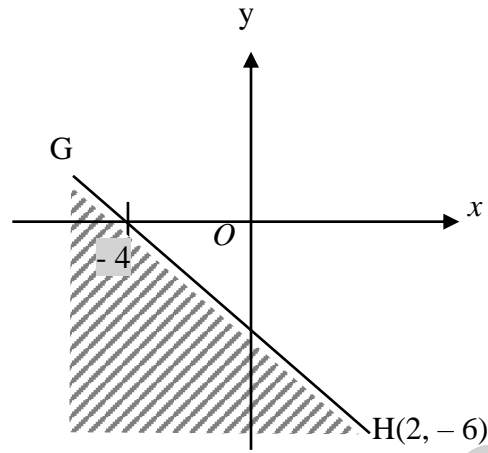


Rajah 10
Diagram 10

Nyatakan sifat kekongruenan segi tiga yang ditunjukkan.
State the properties of triangles congruency shown.

- A Sisi-Sisi-Sisi
Side-Side-Side
- B Sudut-Sisi-Sudut
Angle-Side-Angle
- C Sisi-Sudut-Sisi
Side-Angle-Side
- D Sudut-Sudut-Sisi
Angle-Angle-Side

- 24 Rajah 11 menunjukkan satu garis lurus GH yang dilukis pada satah Cartes.
Diagram 11 shows a straight line GH drawn in a Cartesian plane.



Rajah 11
Diagram 11

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

- A $y < -2x - 3$
B $y \geq -2x - 3$
C $y \leq -x - 4$
D $y > -x - 4$

- 25 Jadual 3 menunjukkan kadar cukai jalan bagi sebuah kereta.
Table 3 shows the road tax rate for a car.

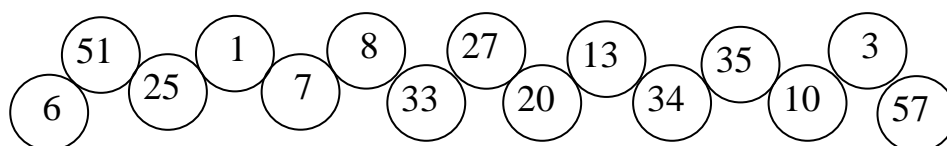
Kapasiti enjin <i>Engine capacity</i>	Kadar asas <i>Basic rate</i>	Kadar progresif <i>Progressive rate</i>
1950 cc	RM280.00	+ RM0.50 setiap cc melebihi 1800 cc + RM0.50 for each cc exceeding 1800 cc

Jadual 3
Table 3

Jika Kamarul mempunyai kereta dengan kapasiti enjin 1950 cc.
Hitung cukai jalan yang perlu dibayarnya.
*If Kamarul has a car with an engine capacity of 1950 cc.
Calculate the road he needs to pay.*

- A RM75
- B RM280
- C RM355
- D RM975

- 26 Rajah 12 menunjukkan suatu set 15 nombor.
Diagram 12 shows a set of 15 cards.



Rajah 12
Diagram 12

Satu kad dipilih secara rawak.

Cari kebarangkalian bahawa satu kad yang dipilih ialah kad yang berlabel nombor perdana.

A card is chosen at random.

Find the probability that the number chose is a prime number.

- A $\frac{1}{3}$
B $\frac{1}{5}$
C $\frac{4}{15}$
D $\frac{7}{15}$

- 27 Sebuah beg mengandungi 56 biji bola yang berwarna merah dan kuning. Kebarangkalian sebiji bola kuning dikeluarkan ialah $\frac{3}{8}$. Hitung bilangan bola merah dalam beg.

A bag contains 56 balls of red and yellow colors. The probability that a yellow ball is taken out is $\frac{3}{8}$. Calculate the number of the red balls in the bag.

- A 21
B 28
C 35
D 42

- 28 Diberi $3p - 4q = \frac{8+pq}{5}$, ungkapkan q dalam sebutan p .

Given that $3p - 4q = \frac{8+pq}{5}$, express q in terms of p .

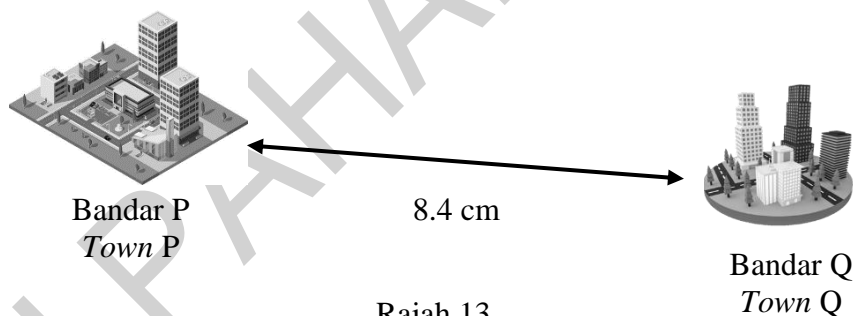
A $q = \frac{15p - 8}{20 + p}$

B $q = \frac{8 - 15p}{p + 20}$

C $q = \frac{15p + 8}{p + 20}$

D $q = \frac{8 + 15p}{20 - p}$

- 29 Rajah 13 menunjukkan dua buah bandar, P dan Q di atas sebuah peta.
Diagram 13 show the location of two towns, P and Q on a map.



Rajah 13
Diagram 13

Diberi bahawa jarak sebenar di antara Bandar P dan Bandar Q ialah 21 km dan jarak dalam peta ialah 8.4 cm. Cari skala yang digunakan dalam peta itu.

Given that the actual distance between Town P and Town Q is 21 km and the distance on the map is 8.4 cm. Find the scale used in that map.

- A 1 : 250
B 1 : 2 500
C 1 : 25 000
D 1 : 250 000

- 30 Diberi
Given

$$\begin{pmatrix} 3 & x \\ 2y - 7 & 8 \end{pmatrix} + \begin{pmatrix} 2 & 9 \\ -1 & 0 \end{pmatrix} = \begin{pmatrix} 5 & 4 \\ -12 & 8 \end{pmatrix}$$

Cari nilai x dan y .
Find the value of x and y .

- A $x = -5, y = -2$
B $x = -5, y = 2$
C $x = 5, y = -2$
D $x = 5, y = 2$
- 31 Jadual 4 menunjukkan lima langkah dalam proses pengurusan kewangan.
Table 4 shows five steps the financial management process.

G	Melaksanakan pelan kewangan <i>Carrying out financial plan</i>
H	Menetapkan matlamat kewangan <i>Setting goals</i>
J	Mengkaji semula dan menyemak kemajuan <i>Reviewing and revising the progress</i>
K	Mewujudkan pelan kewangan <i>Creating financial plan</i>
L	Menilai kedudukan kewangan <i>Evaluating financial status</i>

Jadual 4
Table 4

Antara berikut urutan yang manakah menunjukkan proses pengurusan kewangan yang betul?
Which of the following sequences shows the correct financial management process?

- A $K \rightarrow H \rightarrow G \rightarrow J \rightarrow L$
B $L \rightarrow J \rightarrow H \rightarrow K \rightarrow G$
C $K \rightarrow G \rightarrow J \rightarrow H \rightarrow L$
D $H \rightarrow L \rightarrow K \rightarrow G \rightarrow J$

32 Diberi bahawa $(5 \ 2) \begin{pmatrix} 3 & 1 \\ 6 & -7 \end{pmatrix} = \frac{x}{4} (36 \ -12)$

Hitung nilai x .

It is given that $(5 \ 2) \begin{pmatrix} 3 & 1 \\ 6 & -7 \end{pmatrix} = \frac{x}{4} (36 \ -12)$

Calculate the value of x .

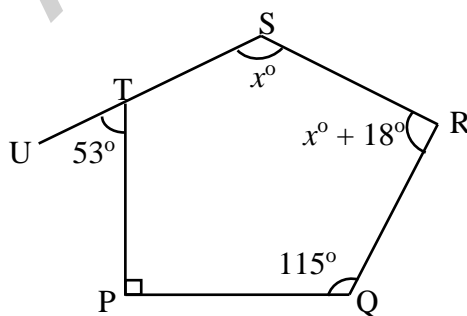
- A 2
- B 3
- C 5
- D 6

33 Selesaikan
Solve

$$10011_2 + 111_2$$

- A 11110_2
- B 11101_2
- C 11010_2
- D 10110_2

34 Rajah 14 menunjukkan sebuah pentagon PQRST dan UTS ialah suatu garis lurus.
Diagram 14 shows a pentagon PQRST and UTS is a straight line.



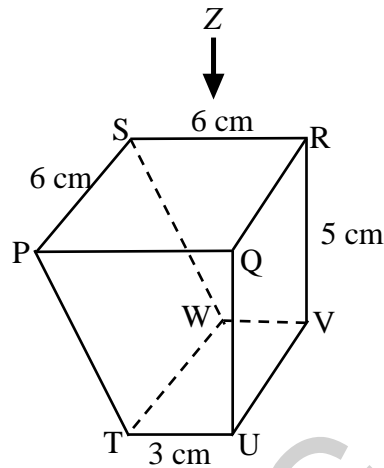
Rajah 14
Diagram 14

Cari nilai x .

Find the value of x .

- A 85
- B 90
- C 95
- D 100

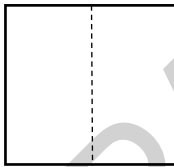

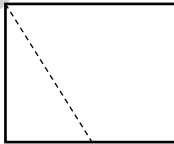
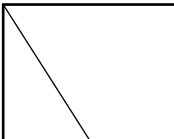
- 35 Rajah 15 menunjukkan sebuah pepejal berbentuk prisma tegak di atas permukaan mengufuk. Trapezium PTUQ ialah keratan rentas seragam pepejal itu.
 Diagram 15 shows a solid in the shape of a right prism on a horizontal plane.
 Trapezium PTUQ is the uniform cross section of the solid.



Rajah 15
 Diagram 15

Antara berikut, yang manakah unjuran ortogon pepejal itu pada satah mengufuk sebagaimana dilihat dari arah Z ?

Which of the following is the orthogonal projection of the solid on the horizontal plane as viewed from Z ?

- A 
- B 
- C 
- D 

- 36 Encik Halim telah membeli satu polisi insurans kebakaran untuk rumahnya yang mempunyai peruntukan ko-insurans untuk menginsuranskan 75% daripada nilai boleh insurans rumahnya. Hitung nilai boleh insurans rumah Encik Halim jika jumlah insurans yang harus dibeli olehnya ialah RM0.9 juta.

Encik Halim has purchased a fire insurance policy for his house which has a co-insurance provision to insure 75% of the house's insurable value. Calculate the insurable value of Encik Halim's house if the amount of insurance required is RM0.9 million.

- A RM120 000
- B RM657 000
- C RM675 000
- D RM1 200 000

- 37 Encik Yap menyimpan RM8 000 dalam satu akaun bank yang menawarkan kadar faedah 4% setahun dan dikompaunkan setiap 6 bulan. Hitung jumlah faedah yang diperolehnya selepas 2 tahun.

Encik Yap deposits RM8 000 in a bank account which offers an interest rate of 4% per annum, and is compounded every 6 months. Calculate the total interest earned after 2 years.

- A RM640.00
- B RM652.80
- C RM659.46
- D RM664.40

- 38 Jadual 4 menunjukkan ringkasan pelan kewangan keluarga Puan Zara.
Table 4 shows the summary of Puan Zara's family financial plan.

Gaji bersih <i>Net salary</i>	RM6 000
Pendapatan pasif <i>Passive income</i>	RM1 800
Simpanan tetap bulanan <i>Fixed monthly income</i>	
Simpanan untuk dana kecemasan <i>Savings for emergency fund</i>	RM200
Jumlah perbelanjaan tetap bulanan <i>Total monthly fixed expenses</i>	RM3 250
Jumlah perbelanjaan tidak tetap bulanan <i>Total monthly variable expenses</i>	RM2 740

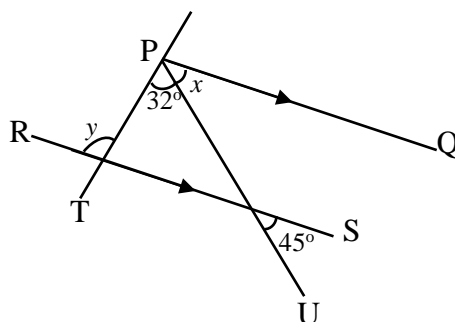
Jadual 4
Table 4

Diberi simpanan tetap bulanan ialah 10% daripada jumlah pendapatan bulanan.
 Tentukan pendapatan lebihan atau kurangan Puan Zara.

Given the fixed monthly income is 10% of the total monthly income. Determine the surplus of income or deficit of Puan Zara.

- A Pendapatan lebihan sebanyak RM830
Surplus of income of RM830
- B Pendapatan lebihan sebanyak RM1 010
Surplus of income of RM1 010
- C Kurangan sebanyak RM830
Deficit of RM830
- D Kurangan sebanyak RM1 010
Deficit of RM1 010

- 39 Rajah 16 menunjukkan dua garis lurus, PT dan PU.
Diagram 16 shows two straight lines, PT and PU.

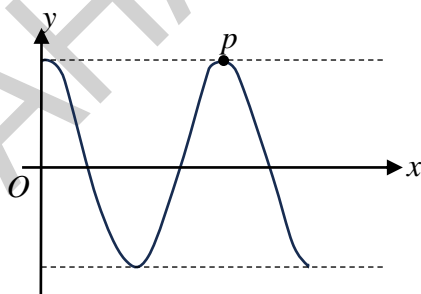


Rajah 16
Diagram 16

Cari nilai x dan y .

Find the value x and y .

- A $x = 45^\circ$, $y = 88$
 B $x = 48^\circ$, $y = 88$
 C $x = 45^\circ$, $y = 77$
 D $x = 48^\circ$, $y = 77$
- 40 Rajah 17 menunjukkan sebahagian graf bagi fungsi $y = 3 \cos 2x$ untuk $x \geq 0^\circ$.
Diagram 17 shows part of the graph of the function $y = 3 \cos 2x$ for $x \geq 0^\circ$.



Rajah 17
Diagram 17

Cari koordinat titik p .

Find the coordinates of point p .

- A $(180^\circ, 2)$
 B $(180^\circ, 3)$
 C $(360^\circ, 2)$
 D $(360^\circ, 3)$

KERTAS SOALAN TAMAT