

SIJIL PELAJARAN MALAYSIA (SET 2)

MATEMATIK

1449/1

Kertas 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 23 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 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 $= \frac{\text{Jumlah jarak}}{\text{Jumlah masa}}$

$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}}$$
- 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 $A^{-1} = \frac{1}{ad - bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$

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 = $\frac{1}{2} \times$ hasil darab panjang dua pepenjuru
Area of kite = $\frac{1}{2} \times \text{product of two diagonals}$
- 8 Luas trapezium = $\frac{1}{2} \times$ hasil tambah dua sisi selari $\times$ tinggi
Area of trapezium = $\frac{1}{2} \times \text{sum of two parallel sides} \times \text{height}$
- 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 = 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 = $\pi r^2 h$

[Lihat halaman sebelah

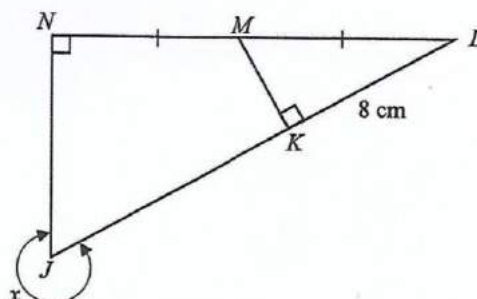
- 14 Isi padu kon = $\frac{1}{3} \pi r^2 h$
 Volume of cone = $\frac{1}{3} \pi r^2 h$
- 15 Isi padu sfera = $\frac{4}{3} \pi r^3$
 Volume of sphere = $\frac{4}{3} \pi r^3$
- 16 Isi padu piramid = $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$
 Volume of pyramid = $\frac{1}{3} \times \text{base area} \times \text{height}$
- 17 Scale factor, $k = \frac{PA'}{PA}$
 Faktor skala, k = $\frac{PA'}{PA}$
- 18 Area of image = $k^2 \times \text{area of object}$
 Luas imej = $k^2 \times \text{luas objek}$

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 Nyatakan nilai digit 3 dalam nombor 2341_5 , dalam asas sepuluh.
State the value of digit 3 in the number 2341_5 , in base ten.
- A 25
B 75
C 125
D 375
- 2 Diberi $A = \begin{pmatrix} -3 & 7 \\ 2 & 1 \end{pmatrix}$ dan $AX = \begin{pmatrix} 11 \\ 28 \end{pmatrix}$. Tentukan peringkat matriks X.
Given that $A = \begin{pmatrix} -3 & 7 \\ 2 & 1 \end{pmatrix}$ and $AX = \begin{pmatrix} 11 \\ 28 \end{pmatrix}$. State the order of matrix X.
- A 1×1
B 1×2
C 2×1
D 2×2
- 3 Dalam Rajah 3, JKL dan LMN ialah garis lurus.
In Diagram 3, JKL and LMN are straight lines.



Rajah 3
Diagram 3

Diberi $\cos \angle KLM = \frac{4}{5}$, cari nilai $\tan x$.
Given $\cos \angle KLM = \frac{4}{5}$, find the value of $\tan x$.

- A $-\frac{2}{3}$
B $\frac{2}{3}$
C $-\frac{4}{3}$
D $\frac{4}{3}$

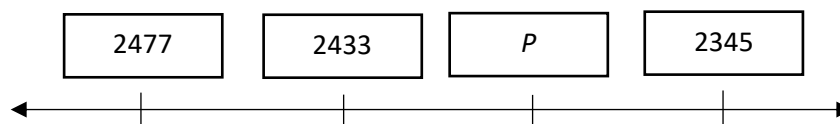
- 4 Sebuah alat penapis air menghasilkan $4 \times 10^3 \text{ cm}^3$ air bersih dalam masa satu minit. Jika penapis air itu beroperasi selama 2 jam, hitung isi padu, dalam cm^3 , air bersih yang dihasilkan.

A water filter produces $4 \times 10^3 \text{ cm}^3$ of clean water in one minute. If the water filter operates for 2 hours, calculate the volume, in cm^3 , of clean water produced.

- A 2.4×10^4
 B 2.4×10^5
 C 4.8×10^4
 D 4.8×10^5

- 5 Rajah 5 menunjukkan suatu garis nombor.

Diagram 5 shows a number line.



Rajah 5
 Diagram 5

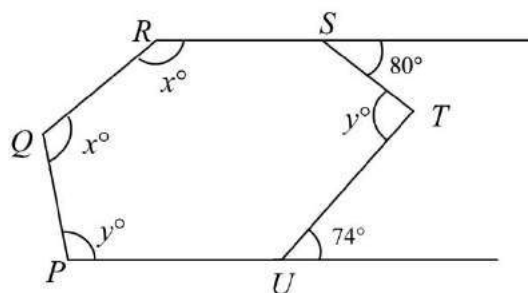
Cari nilai P . Berikan jawapan anda betul kepada tiga angka bererti.

Find the value of P . Give your answer correct to three significant figures.

- A 2.38×10^3
 B 2.38×10^{-3}
 C 2.39×10^3
 D 2.40×10^{-3}

- 6 Rajah 6 menunjukkan heksagon $PQRSTU$.

Diagram 6 shows a hexagon $PQRSTU$.



Rajah 6
 Diagram 6

Cari nilai $x + y$.

Find the value of $x + y$.

- A 132°
 B 257°
 C 334°
 D 514°

- 7 Diberi bahawa $\frac{5}{3m} - \frac{n}{m} = 3n$, ungkapkan m dalam sebutan n .

Given that $\frac{5}{3m} - \frac{n}{m} = 3n$, express m in terms of n .

- A $m = \frac{9n}{5 - 3n}$
 B $m = \frac{5 - 3n}{9n}$
 C $m = \frac{3n - 5}{9n}$
 D $m = \frac{3n - 5}{9}$

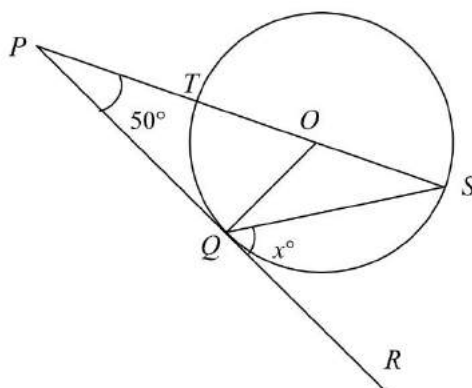
- 8 Diberi bahawa ketaksamaan linear serentak $2x - 1 \leq 7$ dan $-x < 2$, cari nilai-nilai integer yang mungkin bagi x yang memuaskan kedua-dua ketaksamaan tersebut.

Given that simultaneous linear inequalities $2x - 1 \leq 7$ and $-x < 2$, find the possible integer values of x that satisfy both inequalities.

- A -1, 5
 B -1, 3
 C -2, 4
 D -3, 3

- 9 Rajah 9 menunjukkan sebuah bulatan, QST , berpusat O . PQR adalah tangent kepada bulatan tersebut di titik Q .

Diagram 9 shows a circle, QST , centre O . PQR is a tangent to the circle at Q .



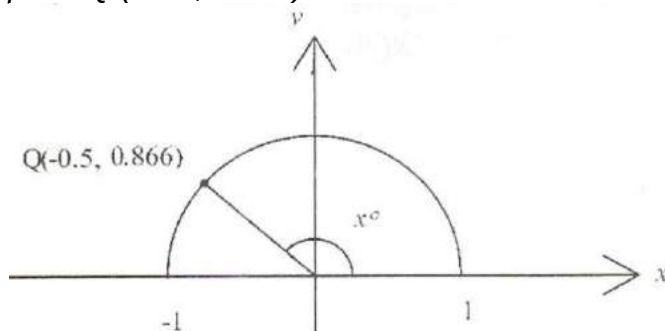
Rajah 9
Diagram 9

Nilai x ialah

The value of x is

- A 20°
 B 40°
 C 50°
 D 70°

- 10 Dalam Rajah 10, titik $Q(-0.5, 0.866)$ terletak pada bulatan unit.
In diagram 10, point $Q(-0.5, 0.866)$ is on the unit circle.



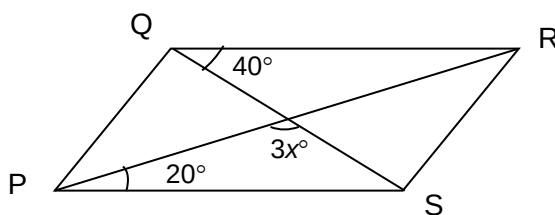
Rajah 10
 Diagram 10

Cari nilai $\sin x^\circ + \cos x^\circ$.

Find the value of $\sin x^\circ + \cos x^\circ$.

- A 0.366
 B 1.366
 C - 0.366
 D - 1.366
- 11 $x(x - 2y) - (y - x)^2 =$
 A $-y^2$
 B $2x^2 - y^2$
 C $2xy - y^2$
 D $-2xy - y^2$

- 12 Rajah 12 menunjukkan sebuah segiempat selari PQRS.
Diagram 12 shows a parallelogram PQRS.



Rajah 12
 Diagram 12

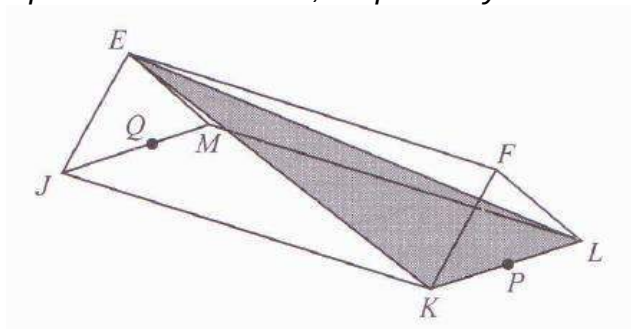
Nilai x ialah

The value of x is

- A 20
 B 40
 C 60
 D 120

- 13 Rajah 13 menunjukkan sebuah prisma dengan segi empat $JKLM$ sebagai tapak mengufuknya. P dan Q adalah titik tengah bagi KL dan JM masing-masing.

Diagram 13 shows a right prism with rectangle $JKLM$ as its horizontal base. P and Q are the midpoints of KL and JM , respectively.

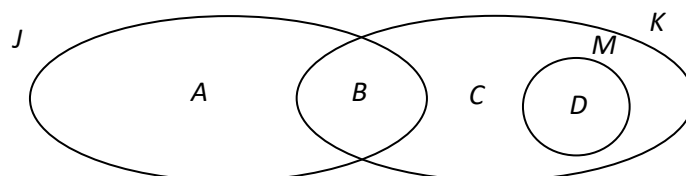


Rajah 13
Diagram 13

Namakan sudut antara satah KLE dan satah KLF .

Name the angle between the plane KLE and the plane KLF .

- A $\angle EPF$
 B $\angle EPQ$
 C $\angle PEF$
 D $\angle PEQ$
- 14 Rajah 14 ialah sebuah gambar rajah Venn yang menunjukkan set J , K dan M . Set semesta $\xi = J \cup K \cup M$.
 Diagram 14 is a Venn diagram, which shows sets J , K and M .
 The universal set $\xi = J \cup K \cup M$.



Rajah 14
Diagram 14

Antara rantau **A**, **B**, **C** atau **D**, yang manakah mewakili set $(J \cap K)' \cap M$?

Which of the region, **A**, **B**, **C** or **D** represents the set $(J \cap K)' \cap M$?

- 15 Diberi bahawa $\left(\frac{1}{4}\right)^n \times 16 = 2$, cari nilai n .
 Given that $\left(\frac{1}{4}\right)^n \times 16 = 2$, find the value of n .

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

- 16 Permudahkan $(2p^{-2}q)^3 \times \frac{1}{2}(p^2q^{-1})$
Simplify $(2p^{-2}q)^3 \times \frac{1}{2}(p^2q^{-1})$
A $4p^{-4}q^2$
B $4p^{-8}q^4$
C $p^{-4}q^2$
D $p^{-8}q^4$
- 17 Diberi $M_5 - 4 = 3(2^5 + 2^4 + 2^1)$, cari nilai M .
Given $M_5 - 4 = 3(2^5 + 2^4 + 2^1)$, find the value of M .
A 1004
B 1104
C 1234
D 1304
- 18 $\frac{3}{5}(m - 3) < 6m + 4 =$
A $m > -\frac{21}{17}$
B $m > -\frac{29}{17}$
C $m > -\frac{21}{27}$
D $m > -\frac{29}{27}$
- 19 Joon Foong mempunyai koleksi duit syiling dari Indonesia, Negara Thai dan Filipina. Dia mengambil satu duit syiling secara rawak. Kebarangkalian untuk mengambil satu duit syiling Indonesia ialah $\frac{1}{3}$ dan kebarangkalian mengambil satu duit syiling negara Thai ialah $\frac{4}{9}$. Joon Foong mempunyai 10 keping duit syiling Filipina. Kira jumlah duit syiling dalam koleksinya.
Joon Foong has a collection of coins from Indonesia, Thailand and Philippines. She picks one coin at random. The probability of picking an Indonesian coin is $\frac{1}{3}$ and the probability of picking a Thailand coin is $\frac{4}{9}$. Joon Foong has 10 Philippine coins. Calculate the total number of coins in her collection.
A 70
B 55
C 45
D 30

- 20 Diberi bahawa R berubah secara songsang dengan kuasa tiga S .
Ungkapkan R dalam sebutan S .

It is given that R varies inversely as the cube of S .

Express R in term of S .

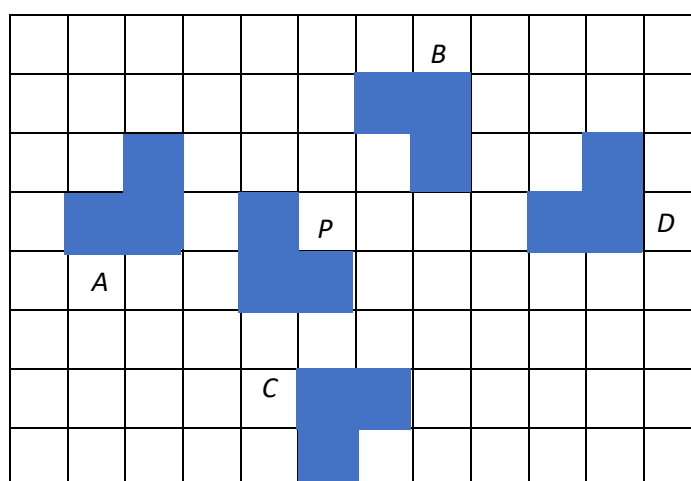
A $R = ks^3$

B $R = kS^{\frac{1}{3}}$

C $R = \frac{k}{S^3}$

D $P = \frac{k}{S^{\frac{1}{3}}}$

- 21 Rajah 21 menunjukkan lima poligon yang dilukis atas grid segi empat.
Diagram 21 shows five polygons drawn on square grids.

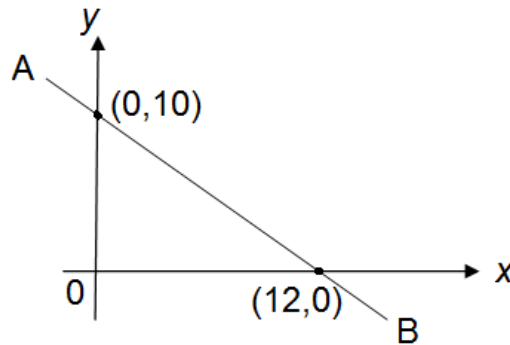


Rajah 21
Diagram 21

Poligon **A**, **B**, **C** atau **D** yang manakah adalah imej bagi P di bawah suatu pantulan?

*Which of the polygons, **A**, **B**, **C** or **D** is the image of P under a reflection?*

- 22 Rajah 22 menunjukkan satu garis lurus AB pada suatu satah Cartes.
Diagram 22 shows a straight line AB on a Cartesian plane.



Rajah 22
Diagram 22

Nyatakan pintasan- x bagi garis lurus AB itu.
State the x -intercept of straight line AB .

- A (0,10)
B (12,0)
C 10
D 12
- 23 Ungkapkan $\frac{3s^2-5}{s} - \frac{2s+9}{7}$ sebagai satu pecahan tunggal dalam bentuk termudah.
Express $\frac{3s^2-5}{s} - \frac{2s+9}{7}$ as a single fraction in its simplest form.
- A $\frac{19s^2 - 9s - 35}{7s}$
B $\frac{19s^2 - 9s - 35}{s}$
C $\frac{3s^2 - 2s - 14}{s}$
D $\frac{3s^2 - 2s + 14}{s}$
- 24 Cukai yang dikenakan atas pendapatan yang diperoleh oleh seseorang individu atau sesebuah syarikat di Malaysia ialah
A tax levied on income earned by an individual or a company in Malaysia is
- A cukai pintu
door tax
B cukai pendapatan
income tax
C cukai jualan dan perkhidmatan
sales and service tax
D cukai jalan
road tax

[Lihat halaman sebelah

- 25 Sebuah syarikat insurans membayar pampasan atas tuntutan insurans motor seorang pemegang polisi insuransnya. Tuntutan tersebut mengandungi kerosakan kereta pihak ketiga dan kebakaran kereta yang dialami oleh pemegang polisi. Nyatakan polisi insurans motor yang mungkin telah dibeli oleh pemegang polisi tersebut.

An insurance company pays compensation for the motor insurance claim of an insurance policyholder. The claim contained third-party car damage and a car fire suffered by the policyholder. State the motor insurance policy that may have been purchased by the policyholder.

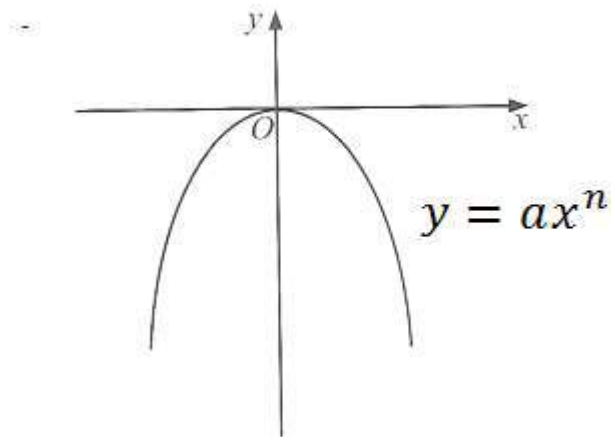
- I Polisi pihak ketiga, kebakaran dan kecurian
Third party policies, fire and theft
- II Polisi pihak ketiga
Third party policies
- III Polisi pihak pertama
First party policies
- A I
- B II
- C I dan III
I and III
- D I dan II
I and II

26 $256 = \boxed{}$

- A $8^{\frac{2}{3}}$
- B $8^{\frac{3}{2}}$
- C $64^{\frac{3}{4}}$
- D $64^{\frac{4}{3}}$

- 27 Rajah 27 menunjukkan graf $y = ax^n$, dengan keadaan a dan n adalah pemalar.

Diagram 27 shows the graph of $y = ax^n$, such that a and n are constant.



Rajah 27
Diagram 27

Antara yang berikut, yang manakah adalah benar tentang hubungan x dan y ?
Which of the following is true about the relation of x and y ?

- A $a = 6, n = 2$
- B $a = 6, n = 3$
- C $a = -6, n = 2$
- D $a = -6, n = 3$

- 28 Jadual 28 menunjukkan bilangan murid Tingkatan 5 dan bilangan ahli Kelab Badminton di sebuah sekolah.

Table 28 shows the number of Form 5 students and the number of Badminton club members in a school.

Bilangan murid <i>Number of students</i>	
Tingkatan 5 <i>Form 5</i> (P)	Kelab Badminton <i>Badminton Club</i> (Q)
300	220

Jadual 28

Table 28

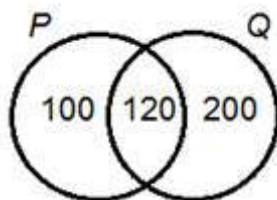
Sebilangan daripada ahli Kelab Badminton adalah murid Tingkatan 5. Diberi bahawa nisbah Tingkatan 5 yang menjadi ahli Kelab Badminton kepada murid Tingkatan 5 yang bukan ahli Kelab Badminton ialah 1 : 2.

Gambar rajah Venn manakah yang mewakili hubungan ini?

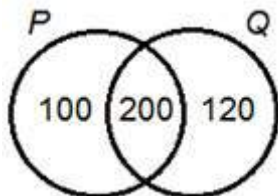
Some of the Badminton Club are Form 5 students. It is given that the ratio of Form 5 students who is a member of Badminton Club to Form 5 students who is not a member of Badminton Club is 1 : 2.

Which Venn diagram represents these relationship ?

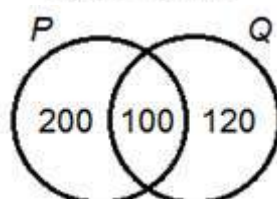
A



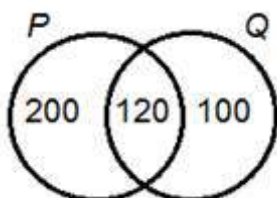
B



C



D



- 29 Diberi bahawa y berubah secara langsung dengan z dan $z = \frac{1}{3x-4}$ and $y = 4$ apabila $x = 2$.

Hitung nilai x bila $y = 8$.

It is given that y varies directly as z and $z = \frac{1}{3x-4}$ and $y = 4$ when $x = 2$.

Calculate the value of x when $y = 8$.

- A $\frac{3}{5}$
 B $\frac{5}{8}$
 C $\frac{8}{5}$
 D $\frac{5}{3}$

- 30 Jadual 30 menunjukkan keputusan 40 orang murid dalam suatu ujian Matematik. Bilangan murid yang memperoleh gred A, gred C dan gred D tidak ditunjukkan.

Table 30 shows the result of 40 students in a Mathematics test. The number of students who scored grade A, C and D are not shown.

Gred Grade	A	B	C	D
Bilangan murid Number of students		8		

Jadual 30

Table 30

Bilangan murid yang memperoleh gred C dan gred D ialah separuh daripada semua murid di dalam kelas itu. Bilangan murid yang memperoleh gred C ialah dua kali ganda bilangan murid yang memperoleh gred B.

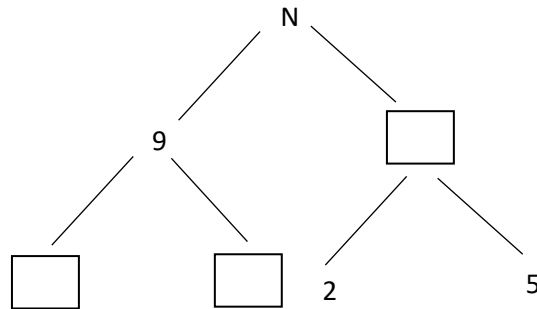
Cari mod.

The number of students who scored grade C and D is half of all students in the class. The number of students who scored grade C is twice the number of students who scored grade B.

Find the mode.

- A Gred A
Grade A
 B Gred B
Grade B
 C Gred C
Grade C
 D Gred D
Grade D

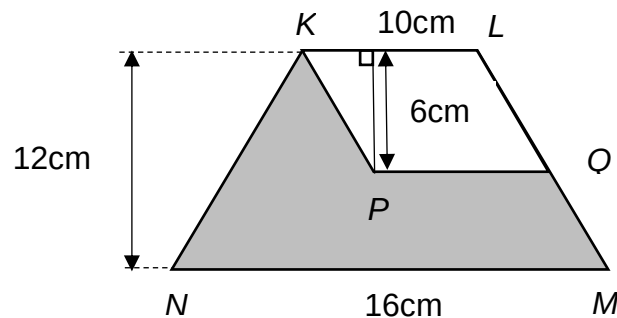
- 31 Rajah 31 menunjukkan pokok faktor tak lengkap bagi nombor N .
Diagram 31 shows an incomplete factor tree of number N .



Rajah 31
 Diagram 31

Tentukan nilai bagi N .
 Determine the value of N .

- A 45
 B 75
 C 80
 D 90
- 32 Dalam rajah 32 di bawah, $KLMN$ ialah sebuah trapezium dan $KLQP$ ialah sebuah segi empat selari.
In the diagram 32, $KLMN$ is a trapezium and $KLQP$ is a parallelogram.

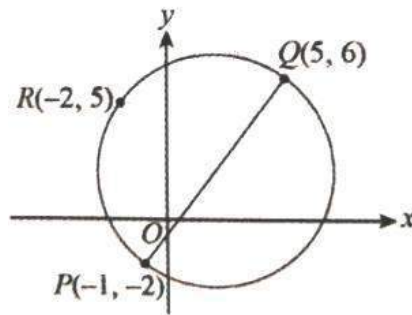


Rajah 32
 Diagram 32

Cari luas, dalam cm^2 , kawasan yang berlorek.
 Find the area, in cm^2 , of the shaded region.

- A 900
 B 146
 C 96
 D 84

- 33 Apakah nombor yang mesti ditambah kepada 182_9 untuk mendapat 500_9 ?
What number must be added to 182_9 to get 500_9 ?
A 307_9
B 312_9
C 317_9
D 417_9
- 34 Puan Zakiah membeli sebuah rumah dengan harga RM380 000 secara tunai. Dia menjual rumah itu dengan harga RM620 000 selepas 5 tahun. Jumlah caj yang terlibat dalam urusan jual beli ialah RM42 000. Hitung nilai pulangan pelaburan Puan Zakiah.
Puan Zakiah bought a house for RM380 000 in cash. She sold the house for RM620 000 after 5 years. The total amount of the charges involved in the transaction is RM42 000. Calculate the return of investment of Puan Zakiah.
A 49.5%
B 52.1%
C 56.9%
D 74.2%
- 35 Rajah 35 menunjukkan sebuah bulatan yang dilukis pada suatu satah Cartes.
Diagram 35 shows a circle drawn on a Cartesian plane.



Rajah 35
Diagram 35

Diberi PQ ialah diameter bulatan itu dan titik R terletak pada lilitan bulatan itu. Cari koordinat pusat bulatan.

Given PQ is the diameter of the circle and point R lies on the circumference of the circle. Find the coordinates of the centre of the circle.

- A (1, 2)
B (1, 3)
C (2, 1)
D (2, 2)

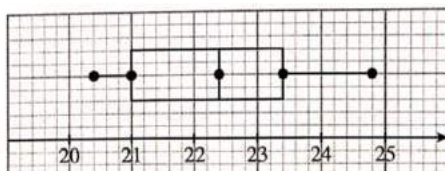
36

Nilai minimum / <i>Minimum value</i>	20.2
Kuartil pertama / <i>First quartile</i>	21
Median / <i>Median</i>	22.4
Kuartil ketiga / <i>Third quartile</i>	23.6
Nilai maksimum / <i>Maximum value</i>	24.8

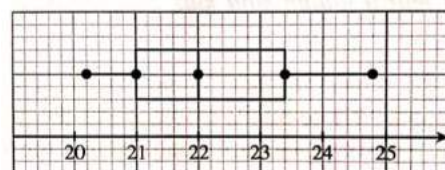
Berdasarkan maklumat bagi satu set data dalam jadual di atas, plot kotak manakah yang mewakili set data itu dengan betul ?

Based on the information of a set of data in the above table, which box plot represents the set of data correctly ?

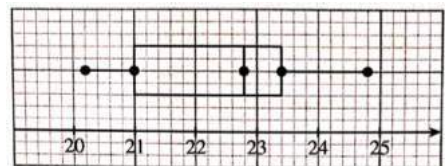
A



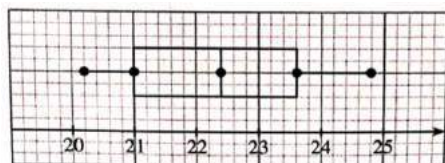
B



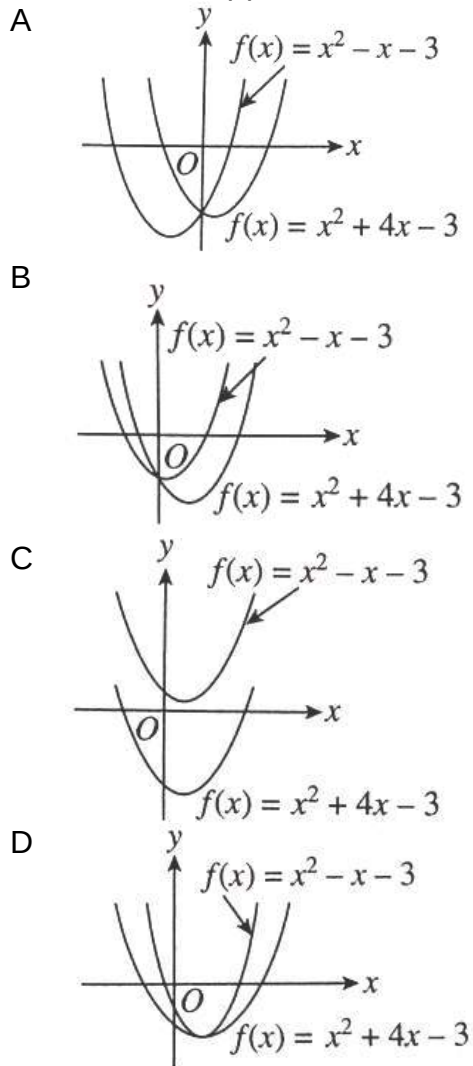
C



D

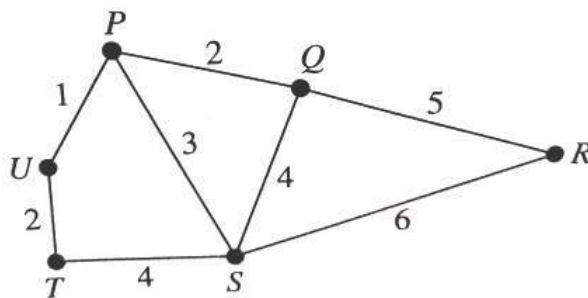


- 37 Antara berikut, yang manakah menunjukkan perubahan graf bagi fungsi kuadratik $f(x) = x^2 - x - 3$ kepada $f(x) = x^2 + 4x - 3$?
Which of the following shows the change of graph of the quadratic function $f(x) = x^2 - x - 3$ to $f(x) = x^2 + 4x - 3$?



- 38 Anne membeli beberapa polisi insurans untuk melindungi hartanya. Dia berpendapat bahawa dia boleh mendapat keuntungan dari polisi insurans amnya jika dia mengalami kerugian. Adakah ini benar ?
Anne bought several insurance policies to protect her properties. She is thinking that she can profit from her general insurance policies if she suffers a loss. Is this true ?
- A Ya, Anne boleh mendapatkan keuntungan polisi insurans amnya. Sekiranya kehilangan atau kerosakan, dia boleh menuntut pampasan daripada insurans yang berbeza yang dibeli.
Yes, Anne can profit from her general insurance policies. In the event of loss or damage, she can claim compensation from the different insurances that she has bought.
- B Ya, Anne boleh mendapat keuntungan daripada polisi insurans amnya. Apabila dia mengalami kerugian, semua syarikat insurans akan membayar pampasan kepadanya mengikut perlindungan insuransnya.
Yes, Anne can profit from her general insurance policies. When she suffers a loss, all the insurance companies will compensate her according to her insurance coverage.
- C Tidak, Anne tidak boleh mendapat keuntungan daripada polisi insurans amnya. Sekiranya berlaku kehilangan atau kerosakan, dia hanya boleh membuat satu tuntutan. Amaun yang perlu dibayar akan disumbangkan oleh syarikat insurans yang terlibat.
No, Anne cannot profit from her general insurance policies. In the event of loss or damage, she only can make one claim. The payable amount is given by the insurance company.
- D Tidak, Anne tidak boleh mendapat keuntungan daripada polisi insurans amnya. Apabila dia membuat tuntutan, amaun yang dibayar akan dibahagikan sama rata di antara polisi yang berbeza yang dibelinya.
No, Anne cannot profit from her general insurance policies. When she makes a claim, the amount payable will be divided equally among the different policies that she bought.
- 39 Terdapat 1 500 orang murid di dalam sebuah sekolah. Daripada jumlah murid tersebut, 35% menggemari jus oren, 30% menggemari jus epal dan 25% menggemari susu. 10% daripada murid tersebut menggemari jus oren dan jus epal. 6% menggemari jus epal dan susu dan 8% menggemari jus oren dan susu. 5% daripada murid tersebut menggemari ketiga-tiga jenis minuman tersebut. Cari bilangan murid yang menggemari jus oren sahaja.
There are 1 500 students in a school. From the total number of students, 35% like orange juice, 30% like apple juice and 25% like milk. 10% of the students like orange juice and apple juice, 6% like apple juice and milk and 8% like orange juice and milk. 5% of the students like all the three types of drinks. Find the number of students who like orange juice only.
- A 180
B 330
C 525
D 585

- 40 Rajah 40 menunjukkan satu graf tak terarah dan berpemberat.
Diagram 40 shows an undirected weighted graph.



Rajah 40
Diagram 40

Liza melukis satu pokok dengan jumlah pemberat minimum berdasarkan graf itu. Hitung jumlah pemberat minimum itu.

Liza draws a tree with a minimum total weight based on the graph. Calculate the minimum total weight.

- A 12
- B 13
- C 14
- D 15

KERTAS PEPERIKSAAN TAMAT

END OF QUESTION PAPER

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.