SULIT

NAMA: ..... TINGKATAN: .....

MODUL PINTAS
MATEMATIK TINGKATAN 5
TAHUN 2025

Kertas 1 **1449/1**
Ogos

$1\frac{1}{2}$ 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 $a^{\frac{m}{n}} = (a^m)^{\frac{1}{n}}$

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

6 Faedah kompaun / *Compound interest*, $MV = P\left(1+\frac{r}{n}\right)^{nt}$

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 $= \frac{\textit{Total distance}}{\textit{Total time}}$

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*

$= (n-2) \times 180°$

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

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

4 Luas bulatan $= \pi j^2$

Area of circle $= \pi r^2$

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

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

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

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

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

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

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

Area of trapezium $= \dfrac{1}{2} \times$ *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 = 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 $= \frac{1}{3} \times$ luas tapak $\times$ tinggi

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

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

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

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

Area of image $= k^2 \times$ *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 Hitung
Calculate

$$\frac{5+(-1)-(-8)}{7-10}$$

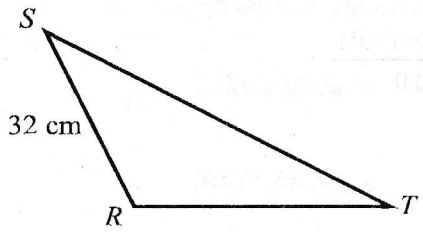
A -4
B -1
C 3
D 8

2 Ali mengisi minyak motosikalnya sebanyak $\frac{3}{4}$ liter pada waktu pagi. Pada waktu petang, dia menggunakan $\frac{5}{6}$ liter minyak untuk menghantar barang. Kemudian, dia mengisi semula $\frac{1}{2}$ liter minyak ke dalam tangki.
Hitung jumlah minyak terkini dalam tangki motosikal Ali.

Ali filled up his motorcycle with $\frac{3}{4}$ litres of fuel in the morning. In the evening, he used $\frac{5}{6}$ litres of fuel to deliver goods. Later, he refilled the tank with another $\frac{1}{2}$ litres of fuel.
Calculate the latest amount of fuel in the tank of Ali's motorcycle.

A $\frac{13}{12}$
B $\frac{10}{12}$
C $\frac{7}{12}$
D $\frac{5}{12}$

3 Rajah 1 menunjukkan sebuah segi tiga *RST*.
Diagram 1 shows a triangle RST.



Rajah 1
Diagram 1

Diberi nisbah $RT : ST : RS = 1 : 2 : \frac{1}{2}$. Hitung perimeter, dalam cm, segi tiga *RST*.

Given the ratio of $RT : ST : RS = 1 : 2 : \frac{1}{2}$. *Calculate the perimeter, in cm, of triangle RST.*

A 104

B 112

C 224

D 256

4 Tentukan Gandaan Sepunya Terkecil (GSTK) bagi 8 dan 12.
Determine the Lowest Common Multiple (LCM) of 8 and 12.

A. 12

B. 24

C. 36

D. 48

5 Terdapat 15 batang keluli berbentuk silinder dengan setiap keluli itu mempunyai diameter 14 cm dan panjangnya 1 m telah dileburkan untuk membentuk 70 biji bebola keluli yang sama saiz.
Hitungkan isipadu, dalam cm^3, bagi sebiji bebola keluli itu.

There are 15 *cylindrical steel rods, each* 14 cm *in diameter and* 1 m *long, which have been melted to form* 70 *steel balls of the same size.*
Calculate the volume, in cm^3, *of each steel ball.*

[Guna / *Use* $\pi = \frac{22}{7}$]

A 1.32×10^4

B 3.3×10^3

C 1.32×10^2

D 3.3×10^1

6 Pendapatan aktif dan pendapatan pasif Encik Tajul masing-masing adalah sebanyak RM4 500 dan RM755. Anggaran jumlah perbelanjaannya adalah RM4 850.
Hitung pendapatan lebihan Encik Tajul dalam asas 6.

Encik Tajul's active income and passive income are RM4 500 *and* RM755 *respectively.*
The estimated total expenditure is RM4 850.
Calculate Encik Tajul's surplus income in base 6.

A 1513_6

B 1512_6

C 1152_6

D 1151_6

7 Diberi $x_9 = 9^3 + (3 \times 9^2) + (2 \times 9^0)$.
Cari nilai x.

Given $x_9 = 9^3 + (3 \times 9^2) + (2 \times 9^0)$.
Find the value of x.

A 123

B 132

C 1032

D 1302

8 Antara berikut, yang manakah **bukan** faktor sepunya bagi sebutan $4k$ dan $6kh$?

*Which of the following is **not** a common factor for the terms of* $4k$ *and* $6kh$*?*

A 1

B 2

C $2k$

D $4k$

9 Rajah 2 menunjukkan 3 biji bola yang sama saiz. Jumlah luas permukaan bagi 3 biji bola tersebut ialah 1039.5 cm^2.

Diagram 2 shows 3 balls of the same size. The total surface area of the 3 balls is 1039.5 cm^2.

Rajah 2
Diagram 2

Hitung jejari, dalam cm, bagi sebiji bola tersebut.
Calculate the radius, in cm, *of a ball.*

[Guna / *Use* $\pi = \frac{22}{7}$]

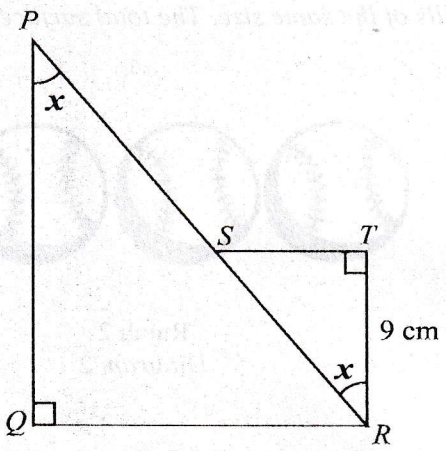
A 5.25

B 9.09

C 27.56

D 82.69

10 Rajah 3 menunjukkan segi tiga bersudut tegak *PQR* dan *SRT*. *PSR* ialah suatu garis lurus.
Diagram 3 shows a right-angled triangles PQR and SRT. PSR is a straight line.



Rajah 3
Diagram 3

Diberi bahawa kos $x = \frac{3}{4}$ dan nisbah panjang *SR* kepada *PQ* ialah 1 : 2. Hitung panjang *PS*.

Given that $\cos x = \frac{3}{4}$ *and the ratio of the length of SR to PQ is* 1 : 2. *Calculate the length of PS.*

A 12

B 20

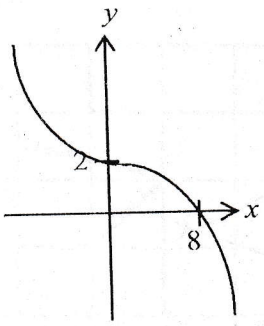
C 28

D 32

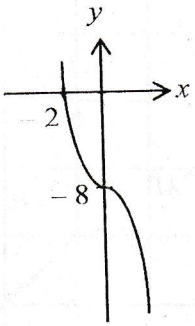
11 Graf yang manakah mewakili $y = -x^3 + 8$?

Which of the graph represents $y = -x^3 + 8$?

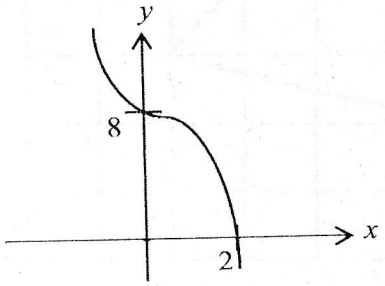
A



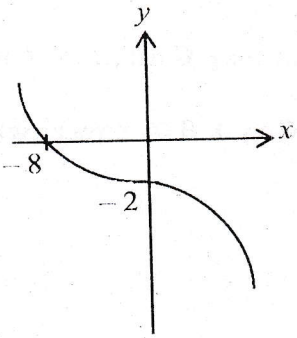
B



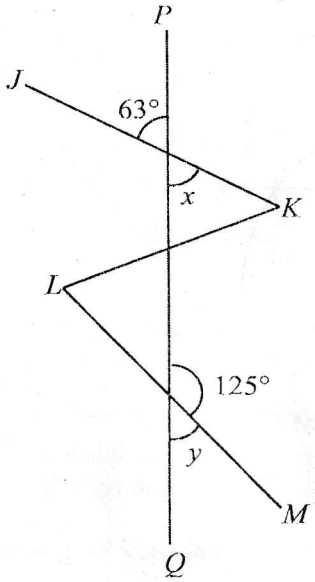
C



D



12 Rajah 4 menunjukkan garis lurus *PQ*, *JK*, *KL* dan *LM*.
Diagram 4 shows straight lines PQ, JK, KL and LM.



Rajah 4
Diagram 4

Cari nilai $x + y$.
Find the value of $x + y$.

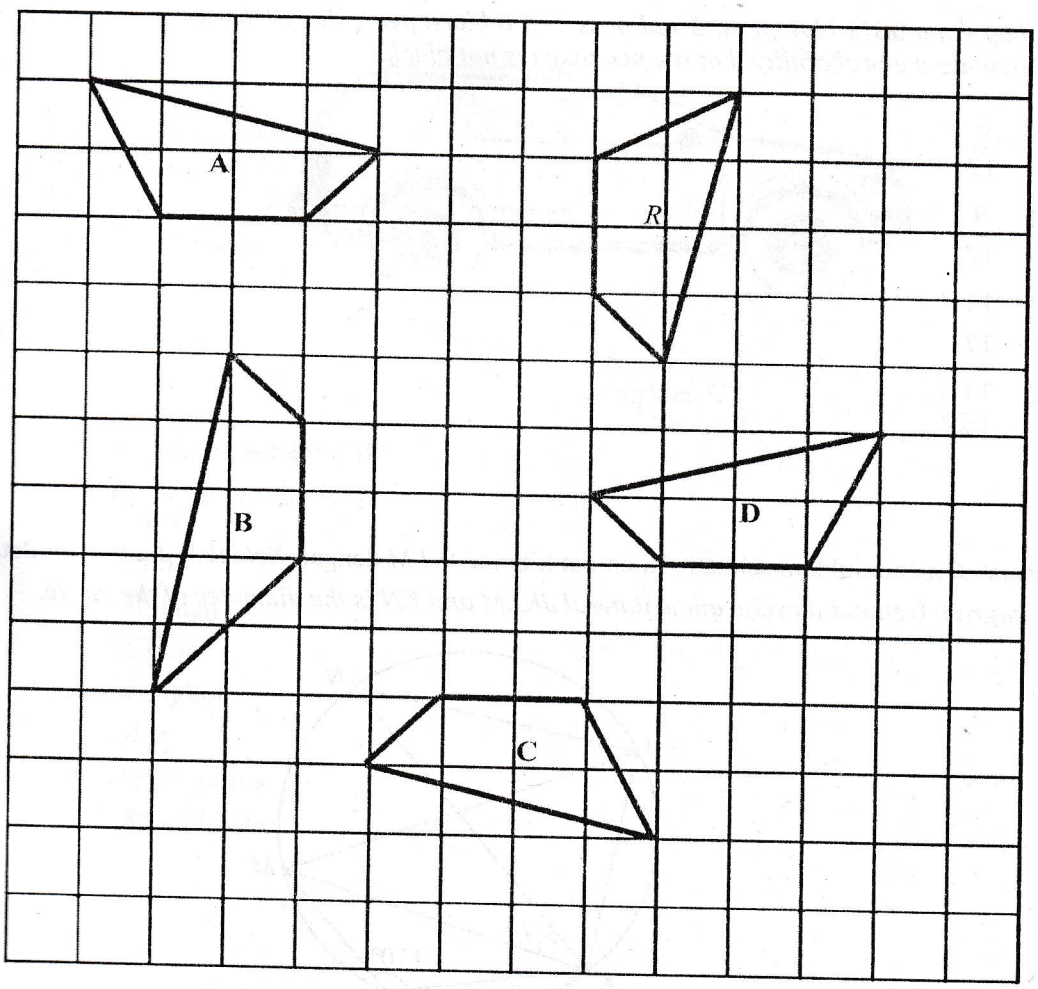
A 117°

B 118°

C 172°

D 188°

13 Rajah 5 menunjukkan lima sisi empat yang dilukis pada grid segi empat sama.
Diagram 5 shows five quadrilaterals drawn on square grids.



Rajah 5
Diagram 5

Antara sisi empat **A**, **B**, **C** dan **D**, yang manakah **bukan** imej yang kongruen dengan sisi empat *R*?
Which of the quadrilaterals **A**, **B**, **C** *or* **D** *is* ***not*** *congruent to quadrilateral R?*

14 Sebuah beg mengandungi 8 batang pen biru, 3 batang pen merah dan 6 batang pen hitam. Zarief mengeluarkan sebatang pen secara rawak.
Hitung kebarangkalian pen yang dikeluarkan tidak berwarna hitam.

A bag contains 8 blue pens, 3 red pens and 6 black pens. Zarief takes out one pen at random. Calculate the probability that the pen taken is not black.

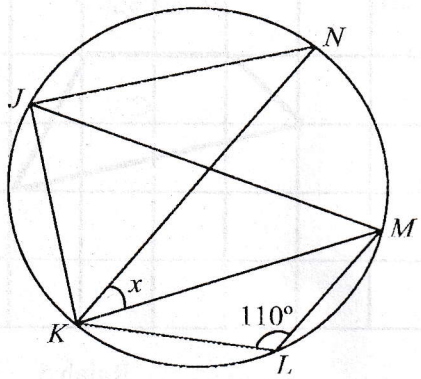
A $\frac{6}{17}$

B $\frac{9}{17}$

C $\frac{11}{17}$

D $\frac{14}{17}$

15 Rajah 6 menunjukkan sebuah sisi empat kitaran *JKLM* dengan *KN* ialah diameter bulatan.
Diagram 6 shows a cyclic quadrilateral JKLM and KN is the diameter of the circle.



Rajah 6
Diagram 6

Cari nilai *x*.
Find the value of x.

A 10°

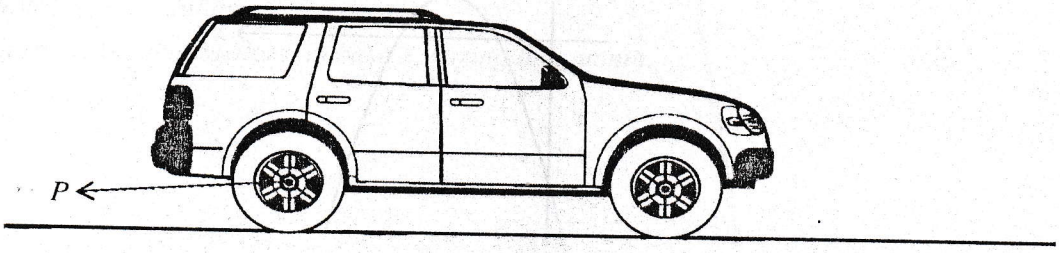
B 20°

C 35°

D 45°

16 Rajah 7 menunjukkan sebuah kereta yang sedang bergerak di atas jalan raya yang lurus dan rata. Titik *P* berada pada pusat tayar.

Diagram 7 shows a car is moving on a straight and flat road. Point P is at the centre of the wheel.



Rajah 7
Diagram 7

Nyatakan lokus bagi titik *P*.

State the locus of point P.

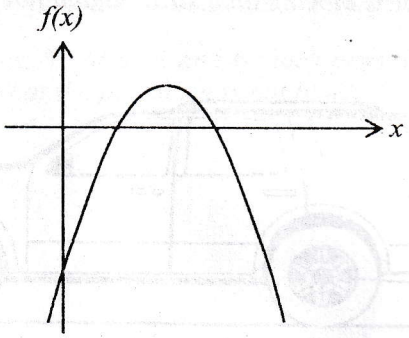
A Titik
Point

B Bulatan
Circle

C Lengkok
Arc

D Garis Lurus
Straight Line

17 Rajah 8 menunjukkan suatu graf fungsi.
Diagram 8 shows a graph function.



Rajah 8
Diagram 8

Apakah persamaan yang mungkin bagi graf fungsi tersebut?
What is the possible equation for the graph function?

A $f(x) = -x^2 + 4x - 3$

B $f(x) = -x^2 + 4x + 3$

C $f(x) = x^2 + 4x - 3$

D $f(x) = x^2 + 4x + 3$

18 Umur Azura adalah 3 tahun lebih tua daripada adiknya, Aqif. Diberi umur Aqif ialah m tahun. Hasil darab umur mereka pada 5 tahun lepas ialah 70.
Hitung umur Azura.

Azura is 3 years older than her younger brother, Aqif. Given that Aqif is m years old. The product of their ages 5 years ago is 70.
Calculate the age of Azura.

A 7

B 10

C 12

D 15

19 Jumlah kanak-kanak dan orang dewasa yang mengunjungi Petrosains pada bulan Februari ialah 460_8. Diberi $\frac{1}{4}$ daripadanya ialah kanak-kanak.
Hitung bilangan pengunjung dewasa, dalam asas 2, pada bulan itu.

The total number of children and adults who are visited Petrosains in February is 460_8.
Given that $\frac{1}{4}$ *of them were children.*
Calculate the number of adult visitors, in base 2, during that month.

A 1001100_2

B 1001101_2

C 11100100_2

D 11100111_2

20 Antara implikasi berikut, yang manakah dapat membentuk implikasi "p jika dan hanya jika q"?
Which of the following implications can form the implication "p if and only if q"?

A P: Jika $k = m^{-1}$, maka $m = \frac{1}{k}$.
Q: Jika $m = \frac{1}{k}$, maka $k = m^{-1}$.

P: *If* $k = m^{-1}$, *then* $m = \frac{1}{k}$.
Q: *If* $m = \frac{1}{k}$, *then* $k = m^{-1}$.

B P: Jika x ialah nombor genap, maka x^2 ialah nombor genap.
Q: Jika x^2 ialah nombor ganjil, maka x ialah nombor ganjil.

P: *If x is an even number, then,* x^2 *is an even number.*
Q: *If* x^2 *is an odd number, then x is an odd number.*

C P: Jika $p^2 - q^2 > 0$, maka $(p + q)(p - q) > 0$.
Q: Jika $(p + q)(p - q) < 0$, maka $p^2 - q^2 < 0$.

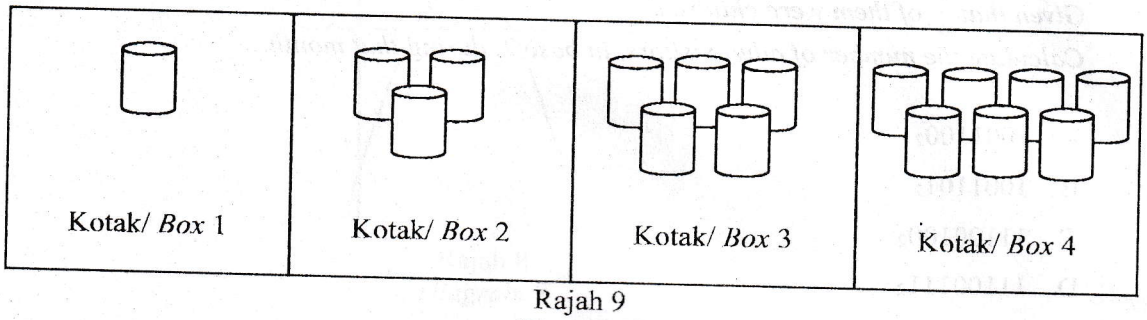
P: *If* $p^2 - q^2 > 0$, *then* $(p + q)(p - q) > 0$.
Q: *If* $(p + q)(p - q) < 0$, *then* $p^2 - q^2 < 0$.

D P: Jika XYZ ialah poligon sekata, maka $XY = YZ = XZ$.
Q: Jika $XY = YZ = XZ$, maka XYZ ialah segi tiga sama sisi.

P: *If* XYZ *is a regular polygon, then* $XY = YZ = XZ$.
Q: *If* $XY = YZ = XZ$, *then* XYZ is an *equilateral triangle.*

21 Rajah 9 menunjukkan susunan tin berbentuk silinder yang sama saiz dalam kotak mengikut pola nombor 1, 3, 5, 7, ...

Diagram 9 shows the arrangement of cylindrical cans of the same size in a box according to the pattern numbers 1, 3, 5, 7 ...



Rajah 9
Diagram 9

Diameter dan tinggi bagi setiap tin masing-masing ialah 7 cm dan 11 cm.
Hitung jumlah isi padu tin, dalam cm^3, bagi kotak ke -7.

The diameter and height of each can are 7 cm *and* 11 cm *respectively.*
Calculate the total volume of the cans, in cm^3, *of the* 7^{th} *box.*

[Guna / *Use* $\pi = \frac{22}{7}$]

A 3811.5

B 4658.5

C 5505.5

D 6352.5

22 Antara berikut, yang mana merupakan hujah deduktif?
Which of the following is a deductive argument?

A Sisi empat mempunyai 4 bucu.
Pentagon mempunyai 5 bucu.
Maka, semua poligon dengan n sisi mempunyai n bucu.

A quadrilateral has 4 vertices.
A pentagon has 5 vertices.
Thus, all polygons with n sides have n vertices.

B Set A dengan 2 unsur mempunyai 4 subset.
Set B dengan 3 unsur mempunyai 8 subset.
Maka, semua set dengan n unsur mempunyai 2^n subset.

Set A with 2 elements has 4 subsets.
Set B with 3 elements has 8 subsets.
Thus, all sets with n elements have 2^n subsets.

C Luas bulatan ialah πj^2 cm^2.
Luas bulatan M dengan jejari 7 cm ialah 49π cm^2.

The area of a circle is πj^2 cm^2.
The area of circle M with a radius of 7 cm is 49π cm^2.

D Hasil tambah sudut peluaran segi tiga ialah 360°.
Maka, hasil tambah sudut peluaran setiap poligon ialah 360°.

The sum of the exterior angles of a triangle is 360°.
Therefore, the sum of the exterior angles of each polygon is 360°.

23 Diberi bahawa set semesta, $\xi = \{x: x \text{ ialah integer}, 30 \leq x \leq 40\}$, set $J = \{32, 34, 36, 38\}$ dan set $K = \{34, 35, 36, 37\}$.
Tentukan semua unsur bagi set $J \cap K$.

Given that the universal set, $\xi = \{x: x \text{ is integer}, 30 \leq x \leq 40\}$, set $J = \{32, 34, 36, 38\}$ and set $K = \{34, 35, 36, 37\}$.
Determine all the elements of set $J \cap K$.

A $\{34, 36\}$

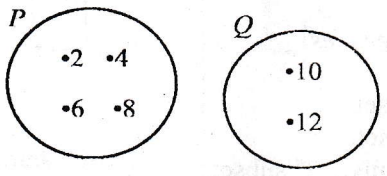
B $\{32, 34, 36\}$

C $\{30, 31, 33, 39, 40\}$

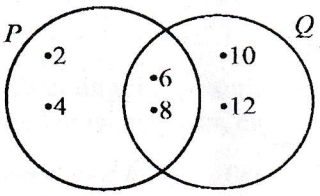
D $\{32, 34, 35, 36, 37, 38\}$

24 Diberi set $P = \{2, 4, 6, 8\}$ dan set $Q = \{6, 8, 10, 12\}$.
Antara gambar rajah Venn berikut, yang manakah mewakili set $P \cup Q$?
Given set $P = \{2, 4, 6, 8\}$ *and set* $Q = \{6, 8, 10, 12\}$.
Which of the following Venn diagrams represent set of $P \cup Q$?

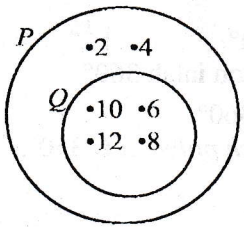
A



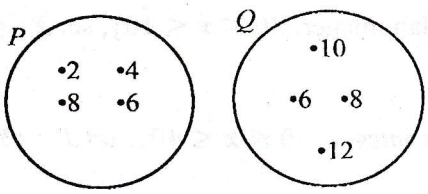
B



C



D



25 Pada hujung minggu, terdapat 30 orang melakukan aktiviti berbasikal, 20 orang berkayak dan 10 orang melakukan kedua-dua aktiviti di sebuah taman rekreasi.
Hitung bilangan orang yang melakukan sekurang-kurangnya satu daripada dua aktiviti tersebut.

At the weekend, there are 30 *persons doing cycling activities*, 20 *persons doing kayaking activities, and* 10 *persons doing both activities in a recreational park.*
Calculate the number of persons doing at least one of the two activities?

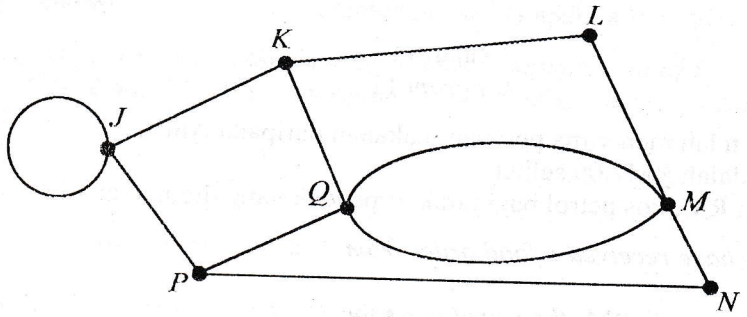
A 40

B 50

C 60

D 70

26 Rajah 10 menunjukkan graf gelung dan berbilang tepi.
Diagram 10 *shows graph loop and multiple edges.*



Rajah 10
Diagram 10

Tentukan bilangan darjah bagi graf itu.
Determine the number of degrees of the graph.

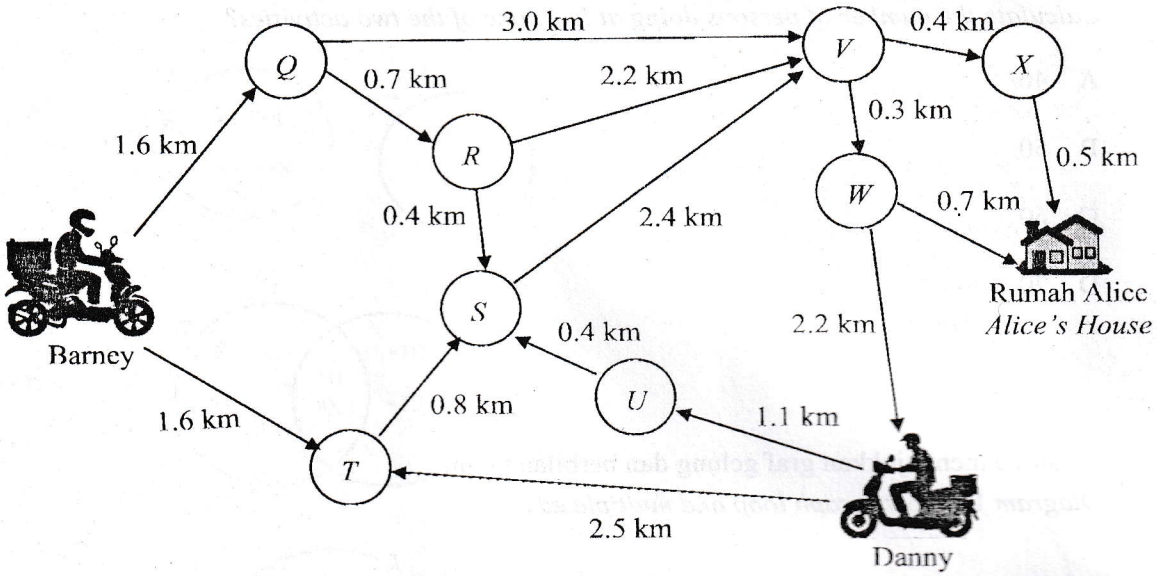
A 22

B 20

C 11

D 10

27 Rajah 11 menunjukkan satu graf terarah dan berpemberat untuk menghantar makanan ke rumah Alice.
Diagram 11 shows a directed weighted graph to deliver food to Alice's house.



Rajah 11
Diagram 11

Barney dan Danny telah menerima pesanan makanan daripada Alice.
Diberi kos petrol adalah RM2.05 seliter.
Hitung beza, dalam RM, kos petrol bagi jarak terpendek yang digunakan oleh mereka.

Barney and Danny have received a food order from Alice. Given the cost of petrols is RM2.05 *per litre.*
Calculate the difference, in RM, *the petrol costs for the shortest distance used by them.*

A 1.85

B 1.43

C 1.23

D 1.03

28 Antara berikut, yang manakah **bukan** kunci komponen dalam konsep SMART semasa menetapkan matlamat?

*Which of the following is **not** a key component in the SMART concept for goal setting?*

A Boleh diukur
Measurable

B Tempoh masa
Time - bound

C Khusus
Specific

D Matlamat
Goal

29 Diberi bahawa F berubah secara langsung dengan kuasa tiga G dan punca kuasa dua H. Jika $F = -8$ apabila $G = 2$ dan $H = 25$, tentukan nilai G apabila $F = 80$ dan $H = 16$.

It is given that F varies directly as the cube of G and the square root of H. If $F = -8$ when $G = 2$ and $H = 25$, determine the value of G when $F = 80$ and $H = 16$.

A 4.64

B 4.46

C -4.46

D -4.64

30 p berubah secara langsung dengan punca kuasa tiga q dan secara songsang dengan r.
Hubungan antara p, q dan r ialah

p varies directly as the cube root of q and inversely as r.
The relation between p, q and r is

A $p \propto \frac{r^2}{\sqrt[3]{q}}$

B $p \propto \frac{q^3}{r}$

C $p \propto \frac{\sqrt[3]{q}}{r}$

D $p \propto \frac{\sqrt[3]{r}}{q}$

31 Diberi bahawa matriks $A = \begin{bmatrix} 3 & 1 & -2 \\ -4 & 2 & 6 \end{bmatrix}$. Tentukan peringkat bagi matriks A.

Given that matrix $A = \begin{bmatrix} 3 & 1 & -2 \\ -4 & 2 & 6 \end{bmatrix}$. Determine the order of matrix A.

A 1×3

B 2×3

C 3×1

D 3×2

32 Diberi bahawa matriks $P = \begin{bmatrix} 2h+1 \\ 5h-8k \end{bmatrix}$ dan matriks $Q = \begin{bmatrix} 15 \\ 31 \end{bmatrix}$.

Hitung nilai h dan k jika $P = Q$.

Given that matrix $P = \begin{bmatrix} 2h+1 \\ 5h-8k \end{bmatrix}$ *and matrix* $Q = \begin{bmatrix} 15 \\ 31 \end{bmatrix}$.

Calculate the value of h and k if $P = Q$.

A $h = 7,\ k = \frac{1}{2}$

B $h = 7,\ k = \frac{1}{4}$

C $h = 8,\ k = \frac{9}{8}$

D $h = 8,\ k = \frac{3}{8}$

33 $\begin{bmatrix} -11 & 9 \\ 10 & 4 \end{bmatrix} + \begin{bmatrix} 11 & 8 \\ -7 & -5 \end{bmatrix} =$

A $\begin{bmatrix} 0 & 16 \\ 3 & 9 \end{bmatrix}$

B $\begin{bmatrix} 0 & 17 \\ 17 & 9 \end{bmatrix}$

C $\begin{bmatrix} 0 & 17 \\ 3 & -1 \end{bmatrix}$

D $\begin{bmatrix} 22 & 17 \\ 3 & -1 \end{bmatrix}$

34 Jika $\begin{bmatrix} 2 & 1 \\ 4 & -6 \end{bmatrix} - M = \begin{bmatrix} 2 & 3 \\ -1 & 6 \end{bmatrix}$, maka matriks M ialah

If $\begin{bmatrix} 2 & 1 \\ 4 & -6 \end{bmatrix} - M = \begin{bmatrix} 2 & 3 \\ -1 & 6 \end{bmatrix}$, *then matrix M is*

A $\begin{bmatrix} 0 & -2 \\ 3 & -12 \end{bmatrix}$

B $\begin{bmatrix} 0 & 2 \\ -5 & 5 \end{bmatrix}$

C $\begin{bmatrix} 0 & -2 \\ 5 & -12 \end{bmatrix}$

D $\begin{bmatrix} 4 & 4 \\ 3 & 0 \end{bmatrix}$

35 Maryam bersarapan di sebuah restoran. Dia makan sepinggan mee goreng, dua ketul ayam goreng dan minum dua cawan teh. Harga sepinggan mee goreng ialah RM8.00, seketul ayam goreng ialah RM5.00, manakala secawan teh ialah RM4.00. Restoran tersebut mengenakan cukai perkhidmatan 6%.
Hitung cukai perkhidmatan yang perlu dibayar oleh Maryam.

Maryam had breakfast at a restaurant. She had eaten a plate of fried noodles, two pieces of fried chicken and drank two cups of tea. The price of a plate of fried noodles is RM8.00, *a piece of fried chicken is* RM5.00, *while a cup of tea is* RM4.00. *The restaurant charges a service tax of* 6%.
Calculate the service tax that Maryam has to pay.

A RM1.02

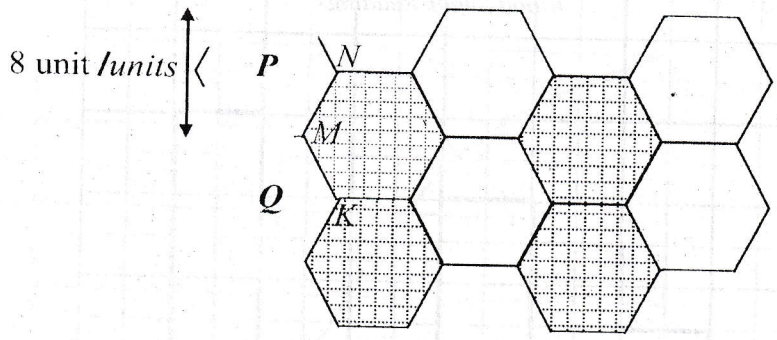
B RM1.56

C RM26.00

D RM 27.56

36 Rajah 12 menunjukkan corak jubin pilihan Devi untuk dinding dapurnya. Corak tersebut menunjukkan suatu bentuk tesclasi daripada heksagon sekata yang dihasilkan dengan transformasi isometri.

Diagram 12 shows the tile pattern chosen by Devi for her kitchen walll. The pattern shows a tessellation of regular hexagons produced by isometric transformation.



Rajah 12
Diagram 12

Nyatakan transformasi yang terlibat untuk menghasilkan bentuk ***P*** daripada bentuk ***Q***.
*State the transformation involved to produce shape **P** from shape **Q**.*

A Pantulan pada garis *MN*
Reflection on line MN

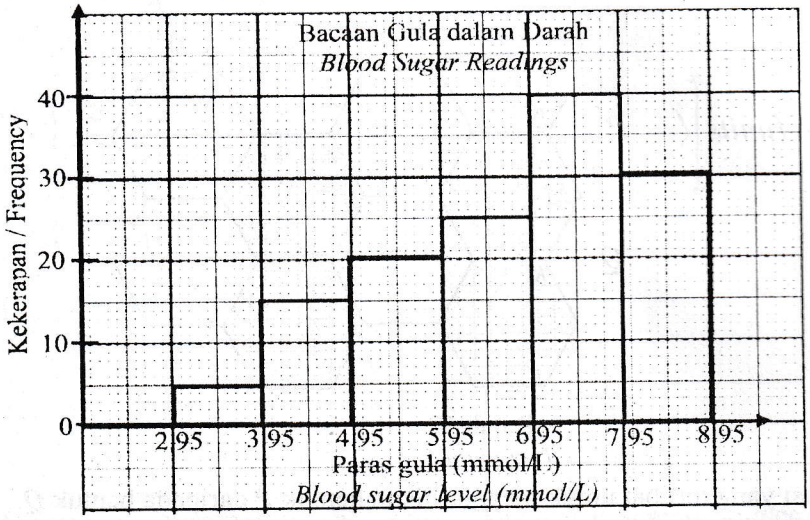
B Pantulan pada garis *KM*
Reflection on line KM

C Translasi $\begin{pmatrix} 8 \\ 0 \end{pmatrix}$
Translation $\begin{pmatrix} 8 \\ 0 \end{pmatrix}$

D Translasi $\begin{pmatrix} 0 \\ 8 \end{pmatrix}$
Translation $\begin{pmatrix} 0 \\ 8 \end{pmatrix}$

37 Rajah 13 menunjukkan satu histogram bagi bacaan gula dalam darah yang diambil daripada sekumpulan pesakit di sebuah klinik.

Diagram 13 shows a histogram of blood sugar readings taken from a group of patients at a clinic.



Rajah 13
Diagram 13

Nyatakan bentuk taburan histogram itu.
State the distribution shape of the histogram.

A Bentuk loceng
Bell-shaped

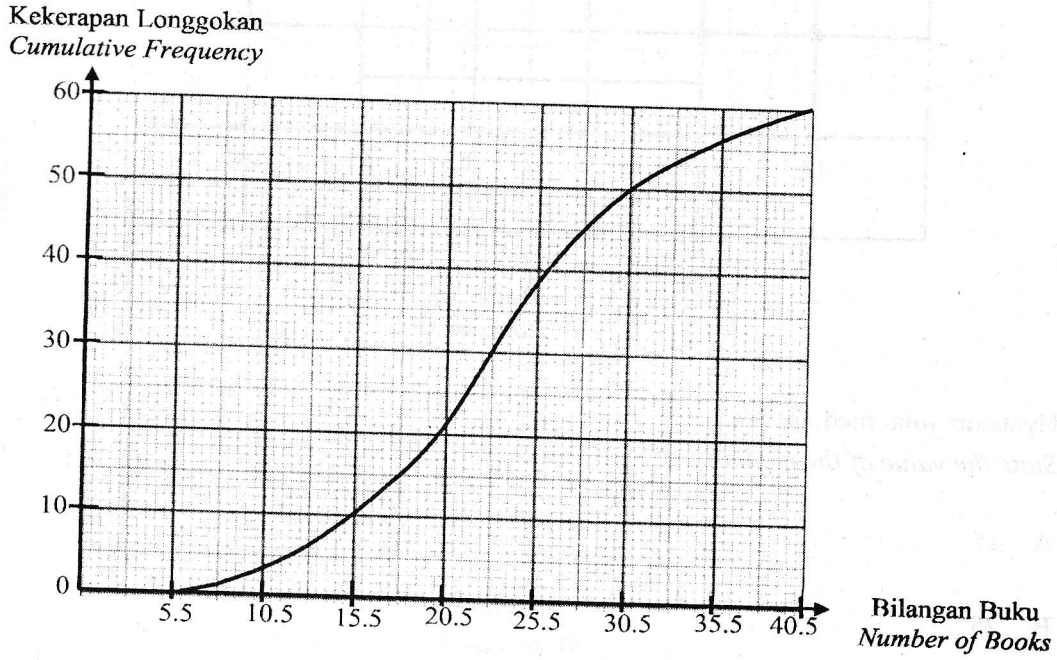
B Seragam
Uniform-shaped

C Pencong ke kanan
Right-skewed

D Pencong ke kiri
Left-skewed

38 Rajah 14 ialah satu ogif yang menunjukkan bilangan buku yang dibaca oleh sekumpulan murid dalam bulan Jun.

Diagram 14 *is an ogive that shows the number of books read by a group of students in June.*



Rajah 14
Diagram 14

Hitung julat antara kuartil bagi ogif tersebut.

Calculate the interquartile range for the ogive.

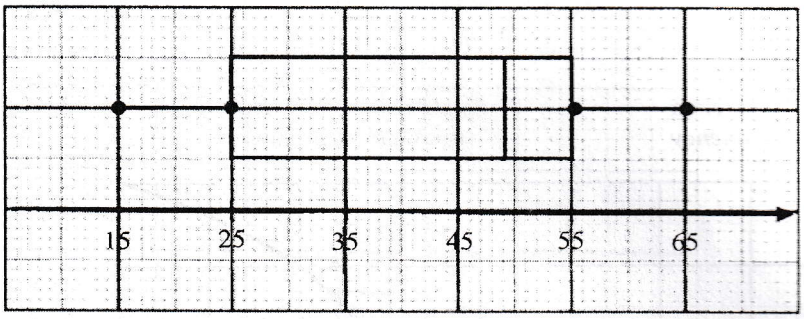
A 10

B 18

C 28

D 35

39 Rajah 15 menunjukkan sebuah plot kotak.
Diagram 15 *shows a box plot.*



Rajah 15
Diagram 15

Nyatakan nilai median.
State the value of the median.

A 15

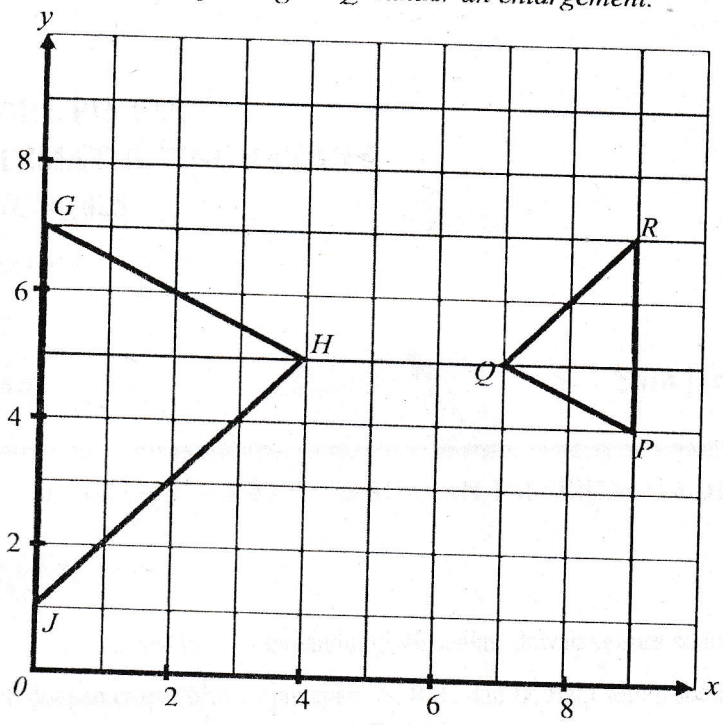
B 25

C 49

D 55

40 Rajah 16 menunjukkan dua segi tiga, *GHJ* dan *PQR*, dilukis di atas satah Cartes. Segi tiga *GHJ* ialah objek bagi segi tiga *PQR* di bawah suatu pembesaran.

Diagram 16 shows two triangles, GHJ and PQR, drawn on a Cartesian plane. Triangle GHJ is the object of triangle PQR under an enlargement.



Rajah 16
Diagram 16

Tentukan pusat pembesaran dan faktor skala bagi pembesaran itu.
Determine the centre and the scale factor of the enlargement.

	Pusat Pembesaran *Centre of Enlargement*	Faktor skala *Scale factor*
A	(6 , 5)	−2
B	(6 , 5)	$-\frac{1}{2}$
C	(5 , 6)	$\frac{1}{2}$
D	(5 , 6)	2

KERTAS PEPERIKSAAN TAMAT
END OF EXAMINATION PAPER