NAMA: …… TINGKATAN: …….

KERTAS PERCUBAAN SPM
TAHUN 2023
JABATAN PENDIDIKAN WILAYAH PERSEKUTUAN PUTRAJAYA (JPWPP)

MATEMATIK
KERTAS 1
(1449/1)

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 24 halaman bercetak.

RUMUS MATEMATIK
MATHEMATICAL FORMULAE

Rumus-rumus berikut boleh membantu anda untuk 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 Nilai matang/$Maturity\ value, MV = P\left(1+\frac{r}{n}\right)^{nt}$

7 Jumlah bayaran balik / *Total repayment*, $A = P + Prt$

PERKAITAN
RELATIONS

1 Jarak / *Distance* = $\sqrt{(x_2-x_1)^2+(y_2-y_1)^2}$

Titik Tengah / *midpoint*

2 $(x, y) = \left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$

3 Purata laju = $\frac{\text{jarak yang dilalui}}{\text{masa yang diambil}}$

Average speed = $\frac{distance\ travelled}{time\ taken}$

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

4 Luas bulatan $= \pi j^2$
Area of circle $= \pi r^2$

5 $$\frac{\text{Panjang lengkok}}{2\pi j} = \frac{\theta}{360^\circ}$$
$$\frac{\text{Arc length}}{2\pi r} = \frac{\theta}{360^\circ}$$

6 $$\frac{\text{Luas sektor}}{\pi j^2} = \frac{\theta}{360^\circ}$$
$$\frac{Area\ of\ sector}{\pi r^2} = \frac{\theta}{360^\circ}$$

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

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

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

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

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 Isipadu prisma tegak = luas keratan rentas$\times$tinggi
Volume of right prism = cross sectional area$\times$height

13 Isipadu silinder $= \pi j^2 t$
Volume of cylinder $= \pi r^2 h$

14 Isipadu kon = $\frac{1}{3}\pi j^2 t$

Volume of cone = $\frac{1}{3}\pi r^2 h$

15 Isipadu sfera = $\frac{4}{3}\pi j^3$

Volume of sphere = $\frac{4}{3}\pi r^3$

16 Isipadu piramid tegak = $\frac{1}{3} \times$ luas tapak $\times$ tinggi

Volume of right 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 / $Variance, \sigma^2 = \frac{\sum f(x-\bar{x})^2}{f} = \frac{\sum fx^2}{f} - \bar{x}^2$

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 / $Standard\ deviation, \sigma = \sqrt{\frac{\sum f(x-\bar{x})^2}{f}} = \sqrt{\frac{\sum fx^2}{f} - \bar{x}^2}$

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

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

Jawab **semua** soalan.

*Answer **all** questions.*

1 Ungkapkan 395 000 dalam bentuk piawai.

Express 395 000 in the standard form.

A 3.95×10^4

B 3.95×10^5

C 39.5×10^4

D 39.5×10^5

2 $0.000034 - 2.2 \times 10^{-6} =$

A 3.18×10^{-6}

B 3.18×10^{-5}

C 3.18×10^5

D 3.18×10^6

3 Jumlah populasi sebuah negara Y dalam tahun 2011 ialah 49.50 juta. Diberi bahawa bilangan orang yang berumur 60 tahun dan ke atas adalah 9.9% daripada jumlah populasi. Hitung bilangan orang yang berumur di bawah 60 tahun.

The total population of a country Y in the year 2011 is 49.50 million. It is given that the number of people who are 60 years old and above is 9.9% of the total population. Calculate the number of people who are below 60 years old.

[1 million = 10^6]

A 4.46×10^6

B 4.46×10^7

C 4.9×10^6

D 4.9×10^7

4 Tukarkan $3 \times 8^4 + 2 \times 8^2 + 5$ kepada satu nombor dalam asas lapan.

Convert $3 \times 8^4 + 2 \times 8^2 + 5$ to a number in base eight.

A 3025_8

B 3250_8

C 30205_8

D 30250_8

5 $10011_2 + 111_2 =$

A 10010_2

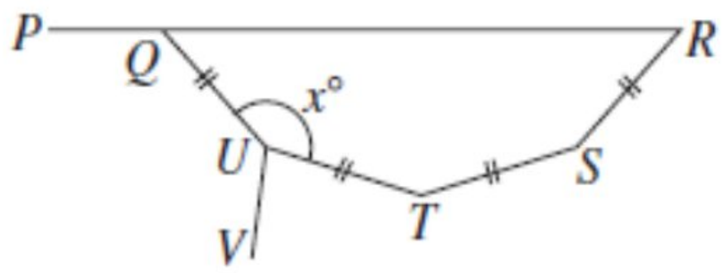
B 10100_2

C 10110_2

D 11010_2

6 Dalam Rajah 1, PQUV ialah sebahagian daripada sebuah poligon sekata yang mempunyai 8 sisi. PQR ialah garis lurus.

In Diagram 1, PQUV *is part of an 8-sided regular polygon.* PQR *is a straight line.*



Rajah 1 / *Diagram* 1

Nilai x ialah

The value of x is

A 120

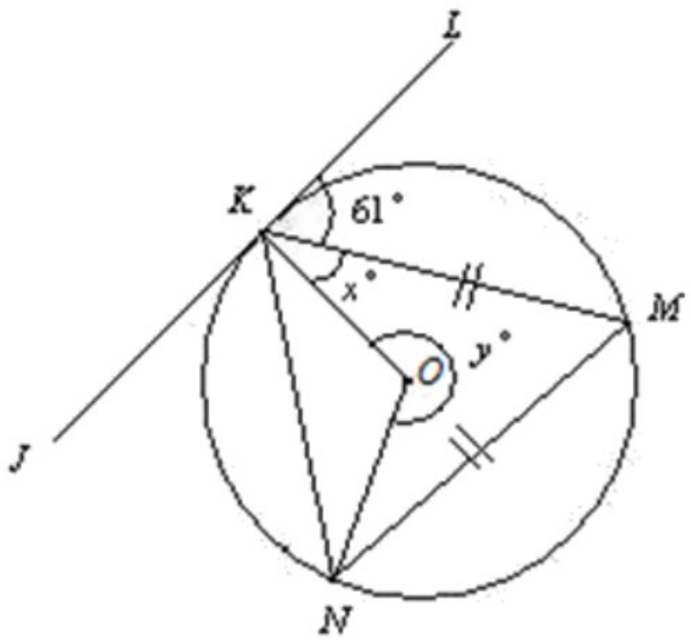
B 135

C 145

D 150

7. Dalam 2 Rajah, JKL ialah tangen kepada bulatan berpusat O di titik K.

In Diagram 2, JKL is a tangent to the circle with centre O at point K.



Rajah 2/ Diagram 2

Cari nilai bagi x + y.

Find the value of x + y.

A 122

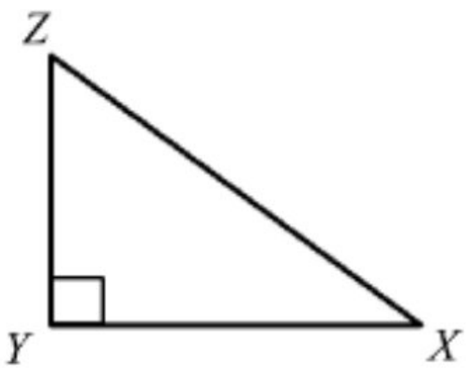
B 151

C 212

D 273

8. Dalam Rajah 3, XYZ ialah segi tiga bersudut tegak dan XY = 5 cm, YZ = 4 cm.

In Diagram 3, *XYZ* is a right-angled triangle and *XY* = 5 cm, *YZ* = 4 cm.



Rajah 3 / *Diagram 3*

Cari panjang XZ, dalam cm. Ungkapkan jawapan anda betul kepada 4 angka bererti.

Find the length of XZ, in cm. Express your answer correct to 4 significant figures.

A 3

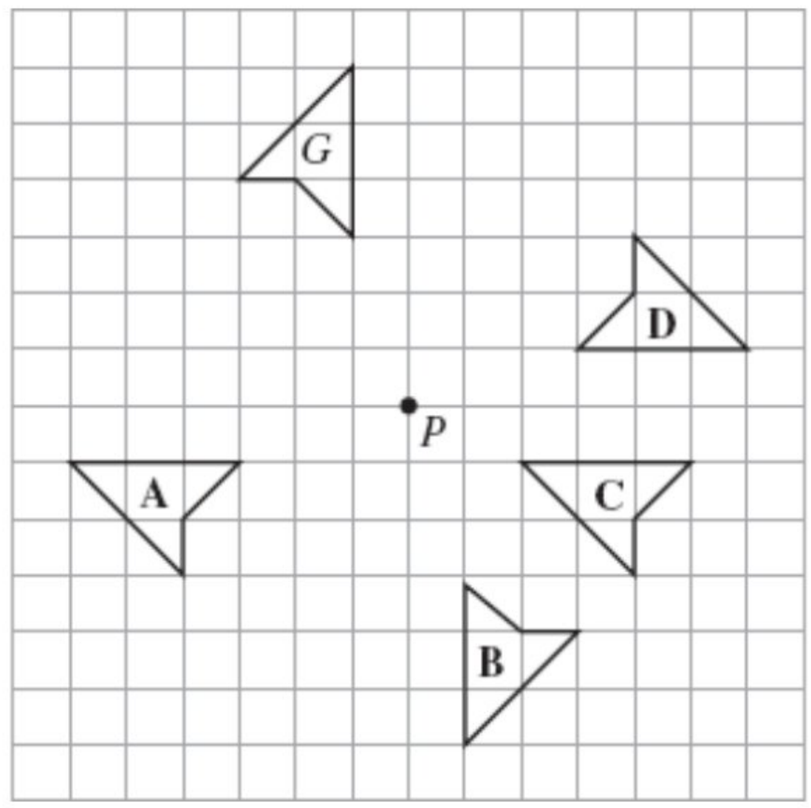
B 6.400

C 6.403

D 6.4031

9. Rajah 4 menunjukkan lima sisi empat yang dilukis pada grid segi empat sama.

Diagram 4 shows five quadrilaterals drawn on a grid of squares.



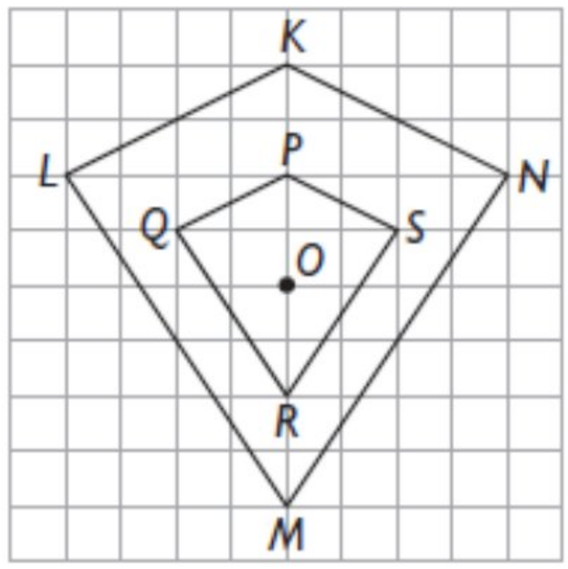
Rajah 4/ *Diagram* 4

Antara sisi empat, **A, B, C** dan **D**, yang manakah ialah imej bagi sisi empat G di bawah satu putaran 90° lawan arah jam pada pusat P?

Which of the quadrilaterals, **A, B, C** *or* **D**, *is the image of quadrilateral G under an anticlockwise rotation of* 90° *about the centre* P*?*

10. Rajah 5 menunjukkan dua sisi empat, PQRS dan KLMN, yang dilukis pada grid segi empat sama.

Diagram 5 shows two quadrilaterals, PQRS and KLMN, drawn on a grid of equal squares.



Rajah 5/ *Diagram 5*

KLMN ialah imej bagi PQRS di bawah satu pembesaran berpusat O.

Cari faktor skala pembesaran itu.

KLMN is the image of PQRS under an enlargement with centre O.

Find the scale factor of the enlargement.

A $\frac{1}{2}$

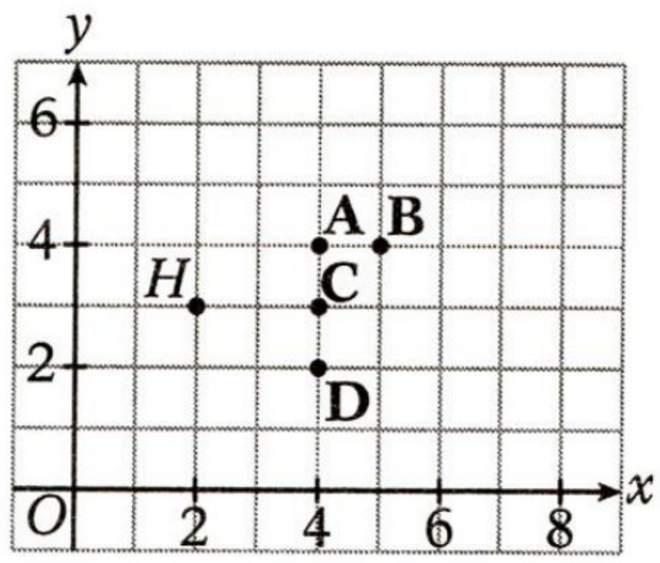
B $\frac{1}{3}$

C 2

D 3

11 Rajah 6 di bawah menunjukkan lima titik yang dilukis pada satah Cartes.

The diagram 6 shows five points drawn on a Cartesian plant.



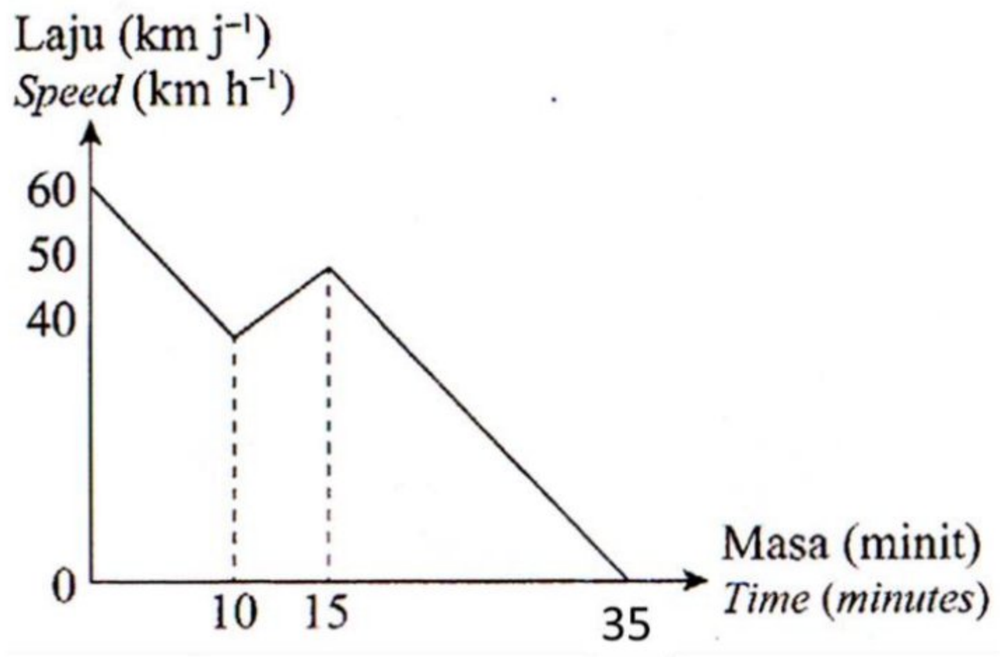
Rajah 6/ *Diagram* 6

Diberi bahawa transformasi **J** ialah satu translasi $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ dan transformasi **K** ialah satu putaran 90° lawan arah jam pada pusat (0 , 4). Antara **A, B, C** dan **D**, yang manakah imej bagi titik **H** di bawah gabungan transformasi **JK**?

It is given that transformations **J** *is a translation and transformation is a rotation of 90° anticlockwise at the center* (0 , 4) *Which of the points,* **A, B, C** or **D,** *is the image of point* **H** *under the combined of transformation* **JK***?*

12 Rajah 7 menunjukkan graf laju-masa bagi sebuah bas sekolah dalam masa 35 minit.

Diagram 7 shows a speed-time graph of a school bus for the period of 35 minutes.



Rajah 7/ *Diagram* 7

Cari jumlah jarak, dalam km, yang dilalui oleh bas sekolah dalam tempoh 20 minit terakhir.

Calculate the total distance, in km, travelled by the school bus for the last 20 minutes.

A 8.33

B 4.38

C 14.58

D 15.00

13 Rajah 8 di bawah menunjukkan satu set data.

The diagram 8 shows a set of data

4.5	4.9	5.1	5.3	5.7	5.8

Rajah 8/ *Diagram* 8

Hitungkan nilai median bagi set data itu.

Calculate the median of the set of data.

A 5.3

B 5.2

C 5.1

D 5.0

14 Jadual 1 menunjukkan bilangan buku yang dipinjam oleh sekumpulan murid dalam satu minggu.

Table 1 shows the number of books borrowed by a group of pupils in a week.

Bilangan buku *Number of books*	Kekerapan *Frequency*
1	x
2	3
3	4
4	2
5	1

Jadual 1/ *Table* 1

Diberi skor min ialah 2.3125. Cari nilai yang mungkin bagi x.

Given that the mean score is 2.3125. *Find the possible value of x.*

A 4

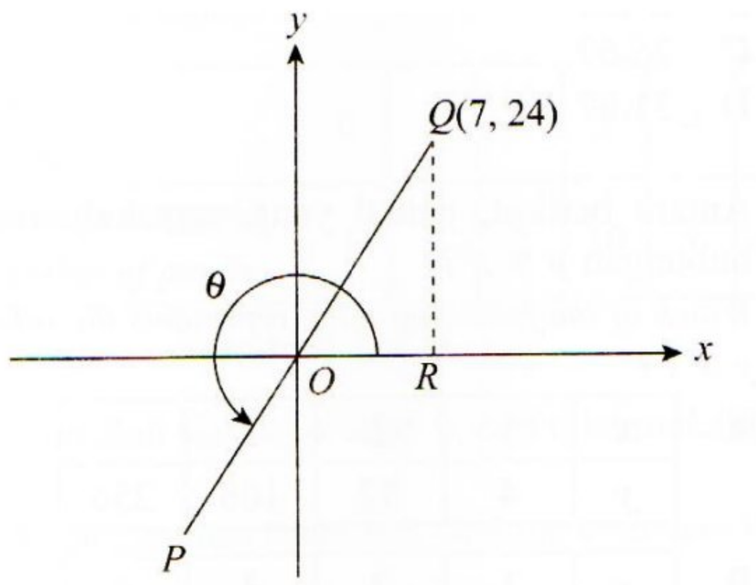
B 5

C 6

D 7

15 Rajah 9 menunjukkan satu garis lurus POQ yang dilukis pada suatu satah Cartes.

Diagram 9 shows a line POQ is drawn on a Cartesian plane.



Rajah 9/ *Diagram* 9

Tentukan nilai kos θ.

Determine the value of cos θ.

A $-\frac{7}{25}$

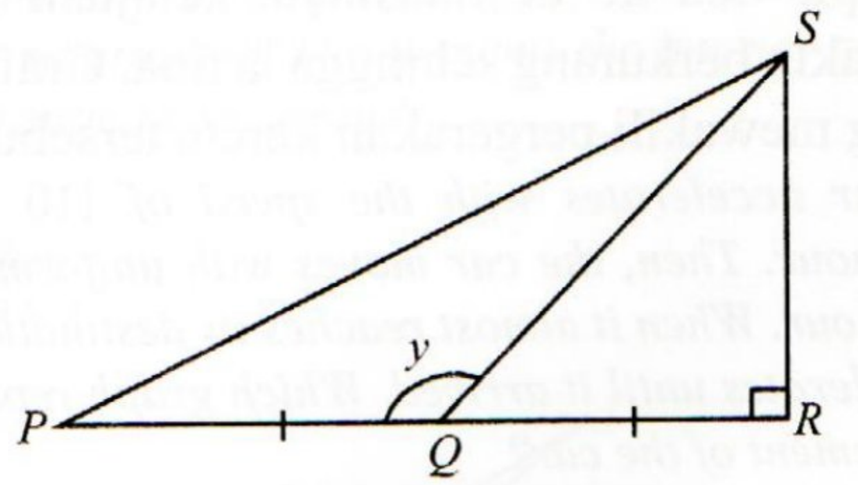
B $-\frac{7}{24}$

C $\frac{7}{25}$

D $\frac{7}{24}$

16 Rajah 10 menunjukkan segi tiga bersudut tegak PRS.

Diagram 10 *shows a right-angled triangle PRS.*



Rajah 10/ *Diagram* 10

Diberi QS = 10 cm dan sin y = $\frac{4}{5}$, cari nilai bagi PQ.

Given QS = 10 *cm and sin y* = $\frac{4}{5}$ *, find the value of PQ.*

A 3 cm

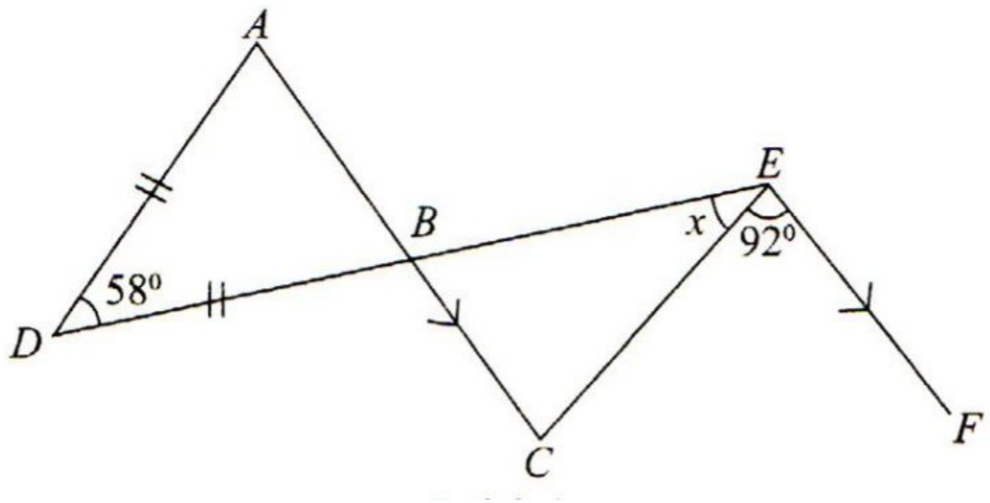
B 4 cm

C 6 cm

D 8 cm

17 Dalam Rajah 11, ABC dan DBE ialah garis lurus.

In Diagram 11, ABC and DBE are straight lines.



Rajah 11/ *Diagram* 11

Cari nilai x.

Find the value of x.

A 27°

B 37°

C 47°

D 57°

18 Antara berikut, yang manakah bentuk am ungkapan kuadratik dalam satu pembolehubah?

Which of the following is the general form of a quadratic expression in one variable?

A $p^2 + 2pq - 8$

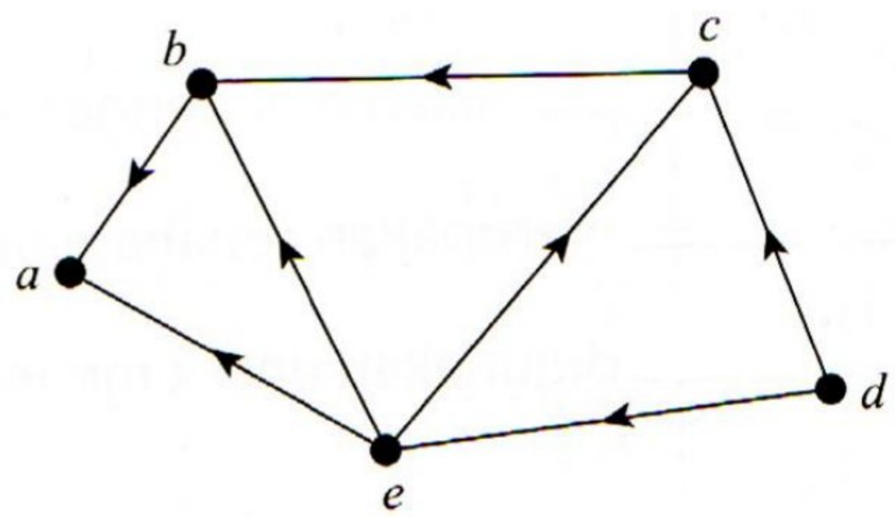
B $2q^2 - 3q + 7$

C $3x^{\frac{1}{2}} + 2x^2 - 5$

D $\frac{1}{2x^2} + \frac{3}{2x} + 1$

19 Rajah 12 menunjukkan sebuah graf terarah.

Diagram 12 shows a directed graph.



Rajah 12 / *Diagram* 12

Antara berikut, yang manakah benar mengenai graf di atas?

Which of the following is true for the graph above?

A $d_{in}(a) = 1,\ d_{out}(b) = 1$

B $d_{in}(b) = 1,\ d_{out}(c) = 2$

C $d_{in}(c) = 2,\ d_{out}(d) = 2$

D $d_{in}(d) = 1,\ d_{out}(e) = 2$

20 Antara berikut, yang manakah menunjukkan set tepi bagi satu graf mudah?

Which of the following shows the set of edges of a simple graph?

A {(P,Q), (P,S), (Q,R), (Q,S), (R,S)}

B {(P,Q), (P,S), (Q,R), (Q,R), (R,S)}

C {(P,Q), (P,S), (Q,R), (Q,S), (R,R)}

D {(P,Q), (P,S), (Q,Q), (Q,S), (R,R)}

21 Azman mempunyai sebuah kereta persendirian di Johor, dengan kapasiti enjin 1750 cc. Hitung cukai jalan bagi keretanya.
Azman has a private car in Johor, with engine capacity of 1750 cc. Calculate the road tax for his car.

Kadar cukai jalan kereta persendirian (Semenanjung Malaysia)
Road tax rates for private cars (Peninsular Malaysia)

Kapasiti enjin *Engine capacity*	Kadar cukai jalan/ *Road tax rates*	
	Kadar asas *Base rate*	Kadar progresif *Progressive rate*
1 000 cc dan ke bawah *1 000 cc and below*	RM20.00	–
1 001 cc – 1 200 cc	RM55.00	–
1 201 cc – 1 400 cc	RM70.00	–
1 401 cc – 1 600 cc	RM90.00	–
1 601 cc – 1 800 cc	RM200.00	RM0.40 untuk setiap perbezaan cc berbanding 1 600 cc *RM0.40 for each cc exceeding 1 600 cc*
1 801 cc – 2 000 cc	RM280.00	RM0.50 untuk setiap perbezaan cc berbanding 1 800 cc *RM0.50 for each cc exceeding 1 800 cc*
2 001 cc – 2 500 cc	RM380.00	RM1.00 untuk setiap perbezaan cc berbanding 2 000 cc *RM1.00 for each cc exceeding 2 000 cc*
2 501 cc – 3 000 cc	RM880.00	RM2.50 untuk setiap perbezaan cc berbanding 2 500 cc *RM2.50 for each cc exceeding 2 500 cc*

Jadual 2 / *Table* 2

A RM162
B RM252
C RM260
D RM272

22 Encik Salihin mempunyai polisi insurans perubatan utama dengan had tahunan RM90 000, deduktibel sebanyak RM400 dan fasal penyertaan peratusan ko-insurans 75/25 dalam polisinya. Dia menjalanai pembedahan dan rawatan dengan jumlah kos RM72 500. Hitung kos perubatan yang ditanggung oleh syarikat insurans.
Encik Salihin has a major medical insurance policy with an annual limit of RM90 000, a deductible of RM400 and a 75/25 co-insurance percentage participation clause in his policy. He underwent a surgery and treatment with a total cost of RM72 500. Calculate the cost borne by the insurance company.

A RM54 075
B RM54 375
C RM72 100
D RM72 500

23 Jadual di bawah menunjukkan pendapatan dan perbelanjaan Encik Rafizi.
The table shows Encik Rafizi's income and expenses.

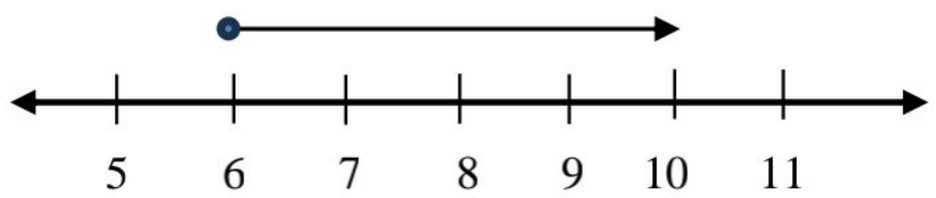
	RM
Gaji *Salary*	7 300
Elaun *Allowance*	1 500
Ansuran kereta *Car installment*	1 600
Makanan dan minuman *Food and drinks*	1 400
Belanja petrol *Petrol expenses*	1 200

Jadual 3 / *Table 3*

Encik Rafizi menyimpan 10% daripada jumlah pendapatan dan sejumlah RM300 untuk dana kecemasan. Hitung pendapatan lebihan Encik Rafizi.
Encik Rafizi kept 10% of the total income and a sum RM300 for the emergency fund. Calculate the surplus of income of Encik Rafizi.

A RM1 140
B RM1 170
C RM3 420
D RM3 570

24 Berdasarkan garis nombor di bawah, ketaksamaan algebra ialah
Based on the number line below, the algebraic inequality is

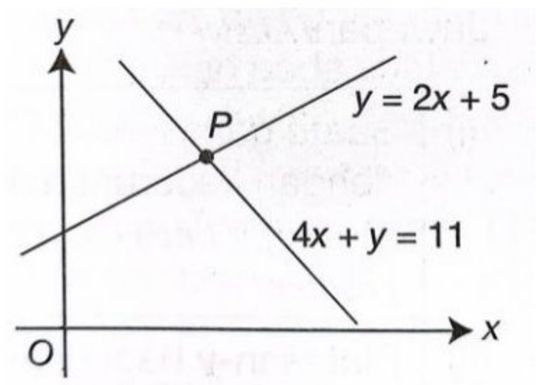


Rajah 13 / *Diagram 13*

A $x > 6$
B $x \geq 6$
C $x < 6$
D $x \leq 6$

25 Rajah berikut menunjukkan dua garis lurus bersilang pada titik P.

The following diagram shows two straight lines intersecting at point P.



Rajah 14 /*Diagram 14*

Tentukan koordinat bagi *P*.

Determine the coordinates of P.

A (1, 7)

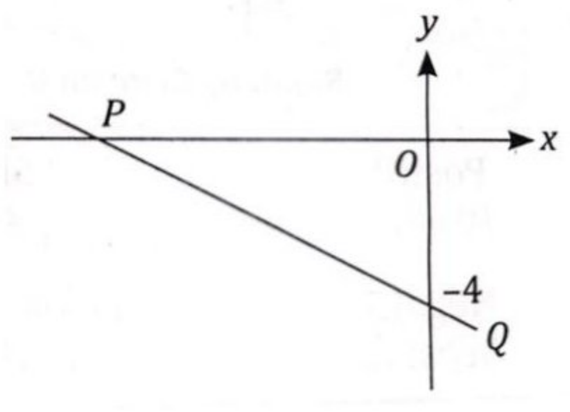
B (2, 5)

C (3, 5)

D (7, 1)

26 Rajah 15 menunjukkan garis lurus PQ dilukis pada suatu satah Cartes.

Diagran 15 shows straight line PQ drawn on a Cartesian plane.



Rajah 15 / *Diagram* 15

Jika jarak mengufuk bagi *P* dari paksi-*y* ialah 8 unit, hitung kecerunan *PQ*.

If the horizontal distance of P from y-axis is 8 *units, calculate the gradient of PQ.*

A -2

B $-\frac{1}{2}$

C $\frac{1}{2}$

D 2

27 Permudahkan $2\left(\frac{2x}{y}\right)^{-3} \div \left(\frac{y}{2x}\right)^{4}$.

Simplify $2\left(\frac{2x}{y}\right)^{-3} \div \left(\frac{y}{2x}\right)^{4}$.

A 2

B 4

C $\frac{4x}{y}$

D $\frac{xy}{2}$

28 Diberi:

Given: $m^7n^5p^6 \times \frac{mn^x}{p^3} = \frac{m^y p^3}{n}$

Cari nilai $x + y$.

Find the value of $x + y$.

A 2

B 6

C 12

D 16

29 Permudahkan / *Simplify*:

$$\frac{x^2 - 4x + 4}{x^2 - 16} \div \frac{4x^2 - 16}{8x - 32}$$

A $\frac{x-2}{x+4}$

B $\frac{2(x-2)}{x+4}$

C $\frac{2(x-2)}{x^2+6x+8}$

D $\frac{2(x-2)}{x+2}$

30 Antara berikut, yang manakah adalah pernyataan yang benar?

Which of the following is a true statement?

A $\sqrt{81} = 9^2$ dan $\frac{1}{4} = 0.25$

$\sqrt{81} = 9^2$ *and* $\frac{1}{4} = 0.25$

B 6 ialah faktor bagi 36 dan 36 ialah faktor bagi 6.

6 *is a factor of* 36 *and* 36 *is a factor of* 6.

C $(-2)^2 \times 4 = 4^2$ dan $-13 > -5$

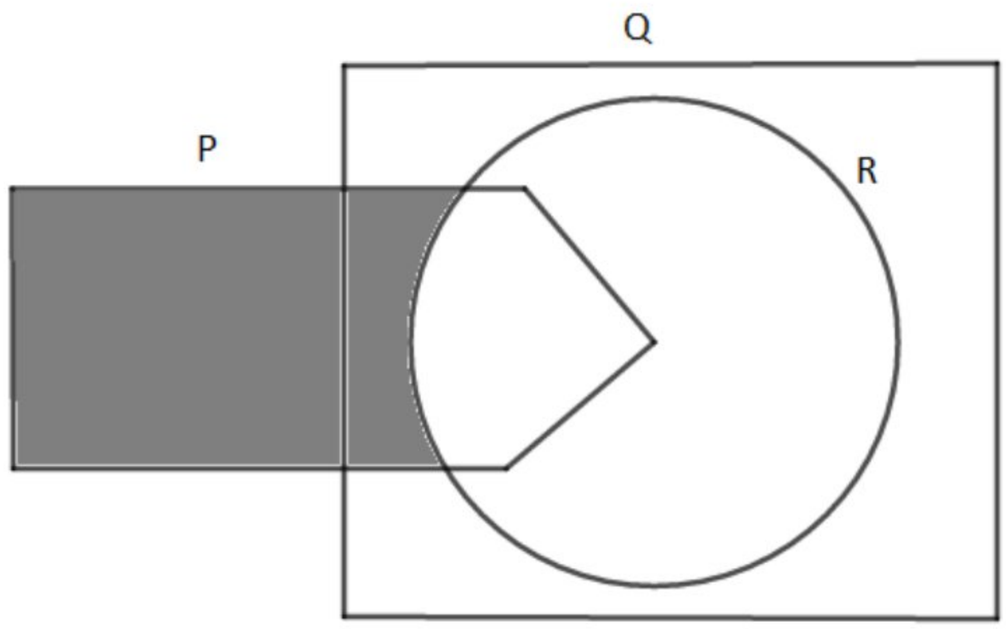
$(-2)^2 \times 4 = 4^2$ *and* $-13 > -5$

D 3 ialah nombor ganjil dan 3 ialah nombor perdana.

3 *is an odd number and* 3 *is a prime number.*

31 Gambar rajah Venn dalam Rajah 16 menunjukkan set P , set Q dan set R.

The Venn diagram in Diagram 16 shows set P, set Q and set R.



Rajah 16 / *Diagram* 16

Antara berikut yang manakah mewakili kawasan berlorek dalam gambar rajah Venn?

Which of the following represents a shaded area in a Venn diagram?

A $P \cap Q \cap R$

B $P \cap Q \cup R$

C $P \cap (Q \cup R)'$

D $P \cap (Q \cap R)'$

32 Jadual 4 menunjukkan kaji selidik mengenai sukan yang diminati dalam kalangan pelajar di sebuah sekolah.

Table 4 shows a survey of sports of interest among students in a school.

Jenis Sukan Types of Sports	Bilangan Pelajar *Number of Students*
Bola Sepak *Football*	39
Hoki *Hockey*	29
Badminton *Badminton*	40
Bola Sepak dan Hoki *Football and Hockey*	14
Bola Sepak dan Badminton *Football and Badminton*	20
Hoki dan Badminton *Hockey and Badminton*	16
Hoki sahaja *Hockey only*	8

Jadual 4 / *Table* 4

Diberi bahawa terdapat sebilangan pelajar yang meminati ketiga-tiga jenis sukan tersebut. Cari jumlah pelajar yang menggemari hanya satu jenis sukan sahaja.

Given that there are a number of students who are interested in all three types of sports. Find the number of students who are interested in only one type of sport.

A 23

B 27

C 35

D 108

33 Data di bawah menunjukkan markah yang diperolehi oleh 15 orang murid dalam suatu ujian Matematik.

The data below shows the scores obtained by 15 *students in a Mathematics test.*

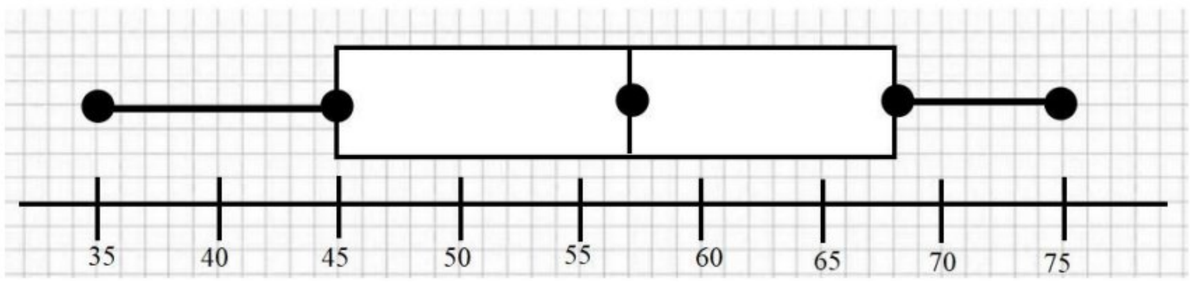
53	52	42	45	57
73	40	35	75	62
68	66	73	52	62

Rajah 17 / *Diagram 17*

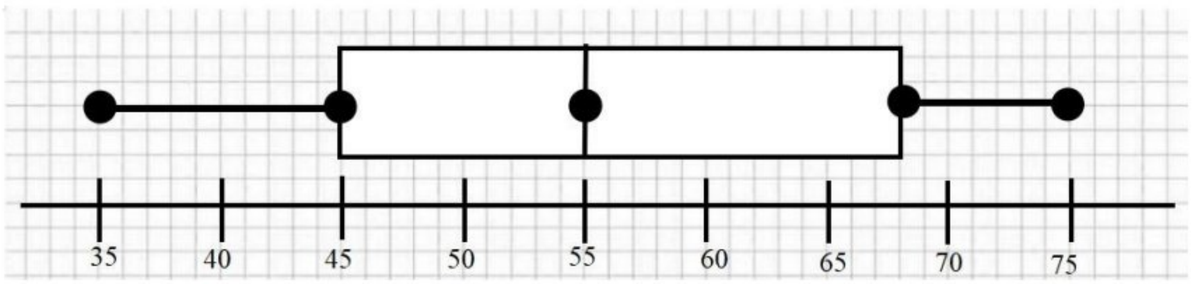
Tentukan plot kotak yang sesuai bagi data tersebut.

Determine an appropriate box plot for the data.

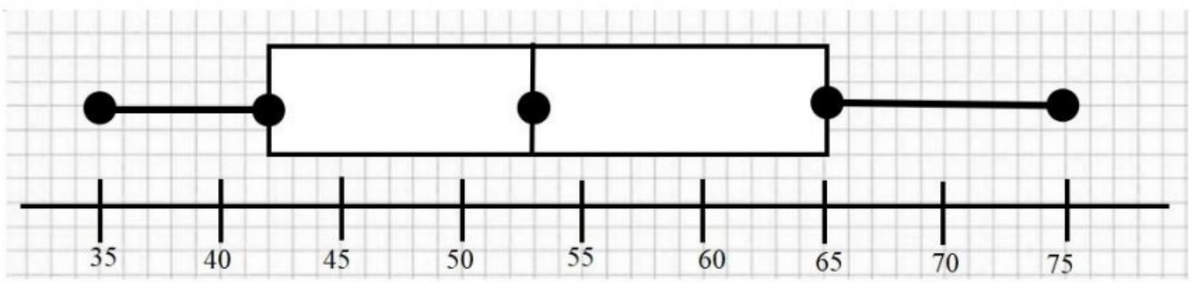
A



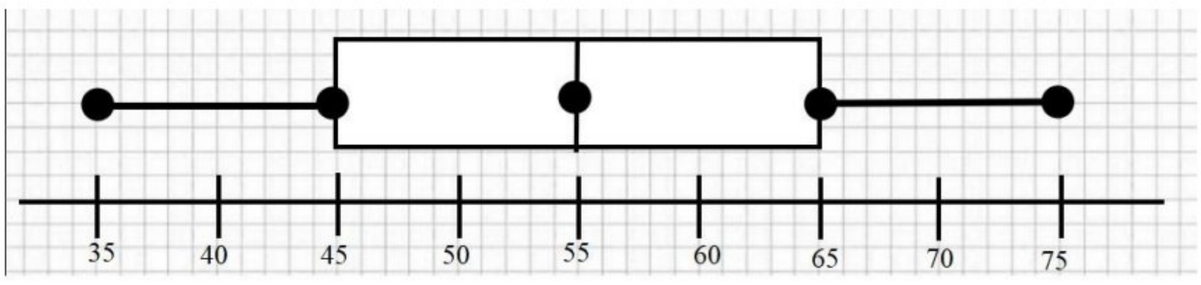
B



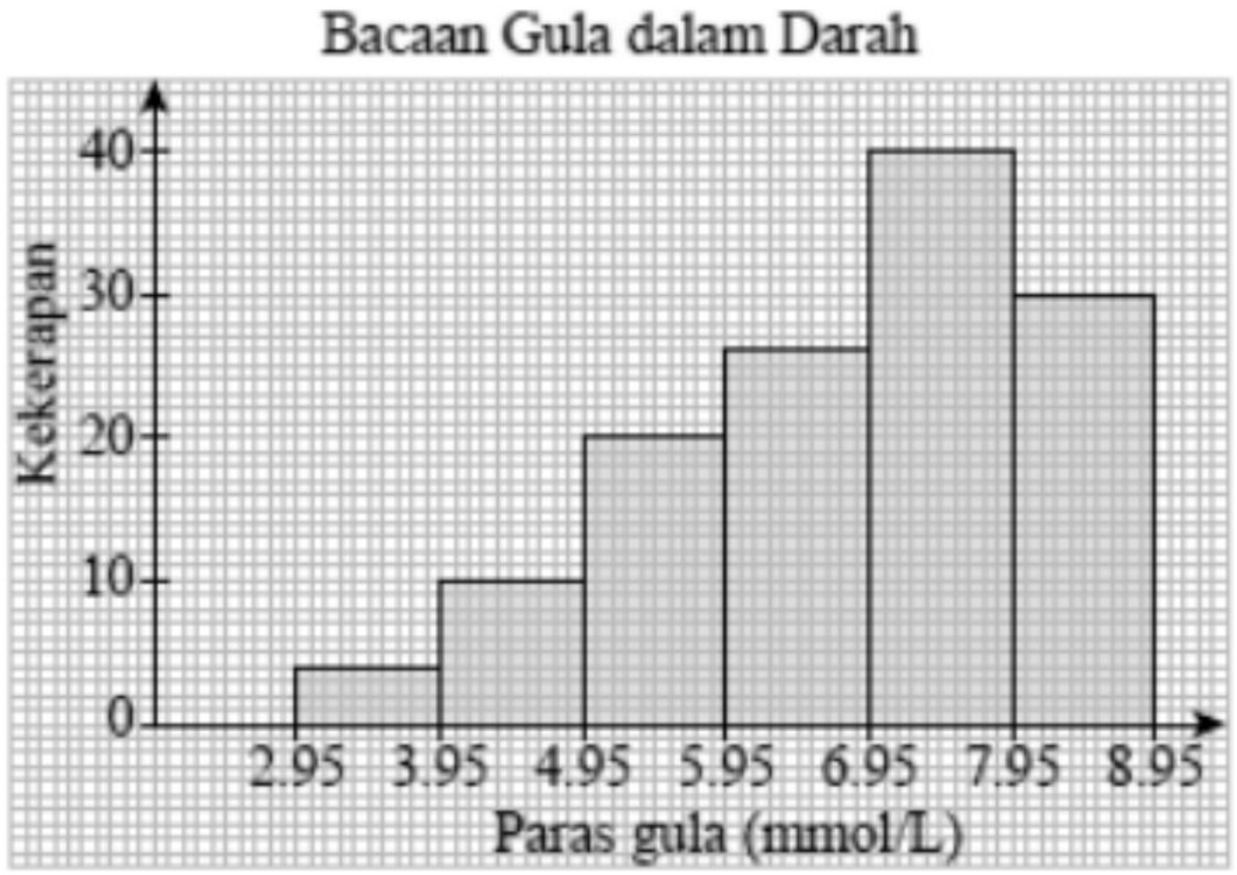
C



D



34 *Histogram di bawah menunjukkan bacaan gula dalam darah yang diambil daripada sekumpulan pesakit daripada sebuah klinik.*
The histogram below shows blood sugar readings taken from a group of patients from a clinic.



Rajah 18 /*Diagram 18*

Hitung min bagi bacaan gula dalam darah.
Calculate the mean for the blood sugar reading.

A 1.35
B 1.82
C 6.75
D 6.82

35 Atlet M dan N terlibat dalam suatu acara lumba lari 100 meter. Jika kebarangkalian atlet M dan N masing-masing melepasi syarat yang ditetapkan ialah $\frac{4}{5}$ dan $\frac{5}{6}$, cari kebarangkalian bahawa hanya salah seorang atlet berjaya melepasinya.
Athletes M and N are involved in a 100 *meter sprint race. If the probabilities of athletes M and N respectively passing the specified conditions are* $\frac{4}{5}$ *and* $\frac{5}{6}$, *find the probability that only one of the athletes successfully passes them.*

A $\frac{2}{3}$
B $\frac{1}{6}$
C $\frac{3}{10}$
D $\frac{2}{15}$

36 Sebuah jambangan bunga mengandungi 5 kumtum bunga mawar, 3 kuntum bunga matahari dan 2 kuntum bunga raya. Jika sekuntum bunga dipilih secara rawak dari jambangan bunga itu, cari kebarangkalian bahawa bunga matahari atau bunga mawar dipilih.

A bouquet contains 5 *roses, 3 sunflowers and* 2 *hibiscuses. If flower is chosen at random from the bouquet, find tha probability that a sunflower or a rose is chosen.*

A $\frac{2}{5}$

B $\frac{1}{2}$

C $\frac{2}{3}$

D $\frac{4}{5}$

37 Dalam satu aktiviti, 4 orang pekerja ditugaskan untuk mencuci cermin sebuah bangunan. Masa yang diperlukan untuk menyiapkan kerja itu ialah 5 hari. Diberi masa, t berubah secara songsang dengan bilangan pekerja, y. Hitung masa yang diperlukan jika 10 orang pekerja melakukan kerja itu.

In an activity, 4 *workers were assigned to clean the mirrors of a building. The time needed to finish the work is* 5 *days. Given the time, t varies inversely as the number of workers, y. Calculate the time, in day, needed if* 10 *workers did the tasks.*

A 9

B 6

C 5

D 2

38 Diberi bahawa w berubah secara langsung dengan y dan secara songsang dengan punca kuasa tiga z. Cari hubungan anatara w, y dan z.

It is given that w varies directly as y and inversely as cube root of z. Find the relation between w, y and z.

A $w = kyz^3$

B $w = \frac{ky}{z^{\frac{1}{3}}}$

C $w = \frac{kz}{y^{\frac{1}{3}}}$

D $w = \frac{kz^{\frac{1}{3}}}{y}$

39 Diberi bahawa $(2k \quad 3)\begin{pmatrix}1 & -2\\ 4 & k\end{pmatrix} = (10 \quad 1)$. Cari nilai *k*.

Given that $(2k \quad 3)\begin{pmatrix}1 & -2\\ 4 & k\end{pmatrix} = (10 \quad 1)$. *Find the value of k.*

A -1

B 1

C 8

D 11

40 Hani dan Aini pergi ke kedai cenderamata untuk membeli kad ucapan dan riben untuk hari guru. Hani membeli 6 kad dan 4 riben manakala Aini membeli 2 kad dan 3 riben berjumlah RM11 dan RM6 masing-masing. Jika *k* dan *r* masing-masing mewakili harga seunit kad ucapan dan riben. Dengan menggunakan kaedah matriks, hitung nilai k dan nilai r, dalam RM.
Hani and Aini went to the gift shop to buy greeting cards and ribbons for teacher's day. Hani purchased 6 *cards and* 4 *ribbons while Aini purchased* 2 *cards and* 3 *ribbons for* RM11 *and* RM6 *respectively. If k and r respectively to represent the price of a greeting card unit and ribbon. By using the matrix method, calculate the value of k and r, in* RM.

A k = RM0.90, r = RM1.40

B k = RM1.40, r = RM0.90

C k = RM0.90, r = RM1.30

D k = RM1.30, r = RM0.90

Selamat mengulangkaji dari telegram@soalanpercubaanspm
Matematik K1 Trial Putrajaya 2023