

1449/1
Matematik
Kertas 1
November 2022
 $1\frac{1}{2}$ jam



MAJLIS PENGETUA SEKOLAH MALAYSIA
NEGERI SEMBILAN

PROGRAM PENINGKATAN AKADEMIK TINGKATAN 5
SEKOLAH-SEKOLAH MENENGAH NEGERI SEMBILAN 2022

MATEMATIK

Kertas 1

Satu jam tiga puluh minit

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIBERITAHU

1. *Kertas peperiksaan ini mengandungi 40 soalan.*
2. *Jawab semua soalan.*
3. *Bagi setiap soalan, pilih satu jawapan sahaja. Hitamkan jawapan anda pada kertas jawapan objektif yang disediakan.*
4. *Kertas soalan ini adalah dalam dwibahasa.*
5. *Rajah yang mengiringi soalan tidak dilukis mengikut skala kecuali dinyatakan.*
6. **Kertas jawapan objektif hendaklah diserahkan kepada pengawas peperiksaan pada akhir peperiksaan.**

Kertas soalan ini mengandungi 25 halaman bercetak dan 3 halaman tidak bercetak.

**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 $a^{\frac{1}{n}} = \sqrt[n]{a}$

5 $a^{\frac{m}{n}} = (a^m)^{\frac{1}{n}} = (a^{\frac{1}{n}})^m$

6 $a^{\frac{m}{n}} = \sqrt[n]{a^m} = (\sqrt[n]{a})^m$

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

8 Nilai Matang / *Maturity Value*,
 $MV = P \left(1 + \frac{r}{n} \right)^{nt}$

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

$$\text{Premium} = \frac{\text{Nilai muka polisi}}{\text{RMx}} \times (\text{Kadar premium per RMx})$$

10
$$\text{Premium} = \frac{\text{Face value of policy}}{\text{RMx}} \times (\text{Premium rate per RMx})$$

Jumlah insurans yang harus dibeli = $\left(\begin{array}{c} \text{Peratusan} \\ \text{ko-insurans} \end{array} \right) \times \left(\begin{array}{c} \text{Nilai boleh} \\ \text{insurans harta} \end{array} \right)$

11
$$\text{Amount of required insurance} = \left(\begin{array}{c} \text{Percentage of} \\ \text{co-insurance} \end{array} \right) \times \left(\begin{array}{c} \text{Insurable value} \\ \text{of property} \end{array} \right)$$

**PERKAITAN
RELATIONS**

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 $A^{-1} = \frac{1}{ad - bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$

6 $m = -\frac{\text{pintasan-y}}{\text{pintasan-x}}$
 $m = -\frac{\text{y-intercept}}{\text{x-intercept}}$

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 = πj^2
Area of circle = πr^2
$$\frac{\text{Panjang lengkok}}{2\pi j} = \frac{\theta}{360^\circ}$$
- 5
$$\frac{\text{Arc length}}{2\pi} = \frac{\theta}{360^\circ}$$
- 6
$$\frac{\text{Luas sektor}}{\pi j^2} = \frac{\theta}{360^\circ}$$

$$\frac{\text{Area of sector}}{\pi r^2} = \frac{\theta}{360^\circ}$$
- 7 Luas layang = $\frac{1}{2} \Delta$ —hasil darab panjang dua pepenjuru
Area of kite = $\frac{1}{2} \Delta$ —*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 = $\pi r^2 h$

[Lihat halaman sebelah
SULIT]

- 14 Isipadu kon = $\frac{1}{3}\pi r^2 h$
Volume of cone = $\frac{1}{3}\pi r^2 h$
- 15 Isipadu sfera = $\frac{4}{3}\pi r^3$
Volume of sphere = $\frac{4}{3}\pi r^3$
- 16 Isipadu piramid tegak = $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$
Volume of right 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, $\sigma^2 = \frac{\sum x^2}{N} - \bar{x}^2 = \frac{\sum (x - \bar{x})^2}{N}$
- 4 Varians / Variance, $\sigma^2 = \frac{\sum fx^2}{\sum f} - \bar{x}^2 = \frac{\sum f(x - \bar{x})^2}{\sum f}$
- 5 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\sum x^2}{N} - \bar{x}^2} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$
- 6 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2} = \sqrt{\frac{\sum f(x - \bar{x})^2}{\sum f}}$
- 7 $P(A) = \frac{n(A)}{n(S)}$
- 8 $P(A') = 1 - P(A)$

- 1 Nilai bagi $62.34 \div 51.45 \times 9.99$ betul kepada empat angka bererti ialah

The value of $62.34 \div 51.45 \times 9.99$ correct to four significant figures is

- A 12.10
- B 12.104
- C 12.105
- D 12.20

- 2 Adam mempunyai 255 kg beras. Dia menggunakan 40% daripada beras itu untuk memasak bubur. Baki beras dibahagikan sama banyak ke dalam 3 beg. Cari jisim, dalam g, beras dalam setiap beg itu.

Adam has 255 kg of rice. He uses 40% of the rice to cook porridge. The remainder of the rice is divided equally into 3 bags. Find the mass, in g, of rice in each bag.

- A 3.4×10^3
- B 3.4×10^4
- C 5.1×10^3
- D 5.1×10^4

- 3 Permudahkan

Simplify

$$\frac{2a + b}{12a - 9b} \div \frac{4a^2 - b^2}{6ab - 3b^2}$$

- A $\frac{3}{4a - 3b}$
- B $\frac{b}{4a - 3b}$
- C $\frac{(2a + b)^2}{4a - 3b}$
- D $\frac{b^2}{a - b}$

- 4 Faktorkan $81m^2 - 81$ dengan lengkapnya.

Factorise $81m^2 - 81$ completely.

- A $81(m-1)(m+1)$
 B $-81(m+1)(m+1)$
 C $81(m-1)(m-1)$
 D $-81(m-1)(m+1)$

- 5 Diberi $3k+1 = \frac{2k-2}{2r}$, ungkapkan k dalam sebutan r dalam sebutan teringkas.

Given $3k+1 = \frac{2k-2}{2r}$, express k in terms of r in the simplest form.

- A $\frac{r+1}{1-3r}$
 B $\frac{2r+2}{2-6r}$
 C $\frac{3}{2-6r}$
 D $\frac{3}{2(1-3r)}$

- 6 Diberi $p = \frac{q-1}{q+1}$ dan $r = \frac{1}{q}$, ungkapkan r dalam sebutan p .

Given $p = \frac{q-1}{q+1}$ and $r = \frac{1}{q}$, express r in terms of p .

- A $r = \frac{p^2-1}{p+1}$
 B $r = \frac{2p-1}{p+2}$
 C $r = \frac{1-p}{p+1}$
 D $r = \frac{1+p}{2-p}$

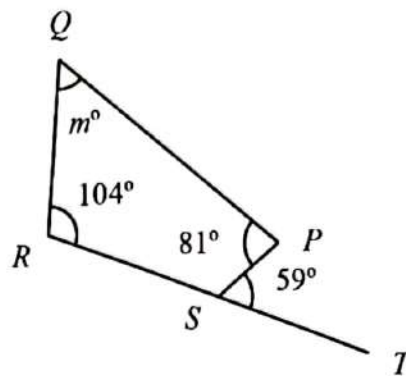
7 Diberi bahawa $\frac{3x-1}{4} = 5 - (x-7)$. Cari nilai bagi x .

Given that $\frac{3x-1}{4} = 5 - (x-7)$. Find the value of x .

- A -3
- B 5
- C 7
- D 9

8 Dalam Rajah 1, RST adalah garis lurus.

In Diagram 1, RST is a straight line.



Rajah 1
Diagram 1

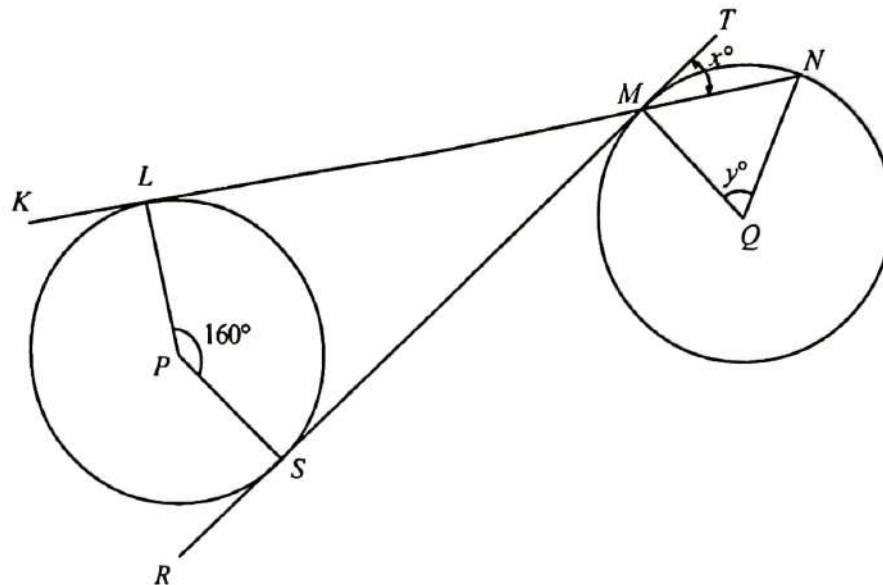
Nilai m ialah

The value of m is

- A 54
- B 64
- C 74
- D 84

- 9 Rajah 2 menunjukkan dua bulatan, masing-masing berpusat P dan Q . $RSMT$ ialah tangen sepunya kepada bulatan-bulatan, masing-masing di S dan di M . $KLMN$ ialah tangen kepada bulatan berpusat P di L .

Diagram 2 shows two circles with centre P and Q respectively. R . $RSMT$ is a common tangent to the circles at S and M respectively. $KLMN$ is a tangent to the circle, centre P at L .



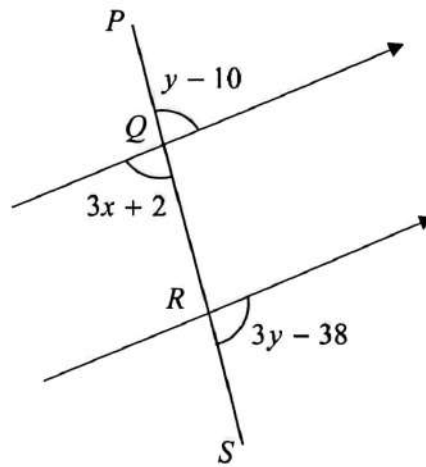
Rajah 2
Diagram 2

Cari nilai $x + y$.

Find the value of $x + y$.

- A 40
- B 60
- C 65
- D 75

- 10 Dalam Rajah 3, $PQRS$ ialah garis lurus.
In Diagram 3, $PQRS$ is a straight line.



Rajah 3
Diagram 3

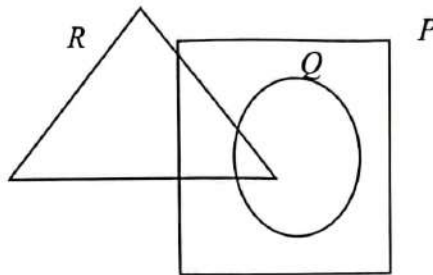
Cari nilai $y - x$.

Find the value of $y - x$.

- A 35°
- B 38°
- C 42°
- D 47°

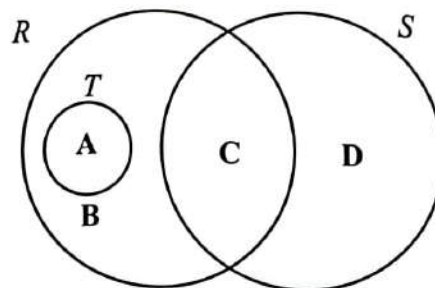
- 11 Gambar rajah Venn pada rajah 4 menunjukkan hubungan antara set P, Q dan R. Diberi set semesta $\xi = P \cup Q \cup R$, $n(P) = 31$, $n(Q) = 21$, $n(\xi) = 72$ dan $n(R' \cap P \cap Q') = 8$. Oleh itu $n[P' \cup (R \cap Q')]$ =

The Venn diagram in diagram 4 shows the relationship between sets P, Q and R. It is given that the universal set $\xi = P \cup Q \cup R$, $n(P) = 31$, $n(Q) = 21$, $n(\xi) = 72$ and $n(R' \cap P \cap Q') = 8$. Therefore $n[P' \cup (R \cap Q')]$ =



Rajah 4
Diagram 4

- A 62
B 43
C 41
D 23
- 12 Rajah 5 menunjukkan sebuah gambar rajah Venn dengan set semesta $\xi = R \cup S \cup T$.
Diagram 5 shows a Venn diagram with the universal set $\xi = R \cup S \cup T$.



Rajah 5
Diagram 5

Antara rantau A, B, C atau D, yang manakah mewakili set $R \cap S' \cap T'$?
Which of the region A, B, C or D represents the set $R \cap S' \cap T'$?

- 13 Diberi $k_8 = 10111_2$, di mana k ialah integer, cari nilai k .
Given $k_8 = 10111_2$, where k is an integer, find the value of k .
- A 17
B 27
C 53
D 56
- 14 Hitung beza nilai digit 3 antara nombor 13247_8 dengan 312_5 .
Calculate the difference between the values of digit 3 in 13247_8 and 312_5 .
- A 487
B 1 461
C 2 700
D 11 905
- 15 R berubah secara langsung dengan punca kuasa tiga S dan berubah secara songsang dengan kuasa dua T . Diberi hubungan antara R , S dan T ialah $R = kS^pT^q$. Nyatakan beza antara nilai p dan q .
 R varies directly as the cube root of S and inversely as the square of T . Given the relationship among R , S and T is $R = kS^pT^q$. State the difference between p and q .
- A $\frac{1}{3}$
B $\frac{2}{3}$
C $\frac{5}{3}$
D $\frac{7}{3}$

- 16 Diberi y berubah secara songsang dengan kuasa dua x , dan $y = 2$ apabila $x = 4$.
Ungkapkan y dalam sebutan x .

Given y varies inversely as the square of x , and $y = 2$ when $x = 4$.

Express y in terms of x .

- A $y = \frac{8}{\sqrt{x}}$
B $y = \frac{32}{\sqrt{x}}$
C $y = \frac{32}{x^2}$
D $y = \frac{8}{x^2}$

- 17 Ringkaskan $(mn^2)^3 \div m^{-4}n^8$

Simplify $(mn^2)^3 \div m^{-4}n^8$

- A m^7n^{-1}
B m^7n^{-2}
C m^5n^{14}
D $m^{-5}n^{14}$

- 18 Antara berikut, yang manakah merupakan satu pernyataan?

Which of the following is a statement?

A $3k > 8$

B $2b - 6 = -8$

C $4^2 + 6^2$

D $3^2 = \sqrt{9}$

- 19 Cari penyelesaian bagi $8 - \frac{x}{2} < 3 + 2x$.

Find the solution for $8 - \frac{x}{2} < 3 + 2x$

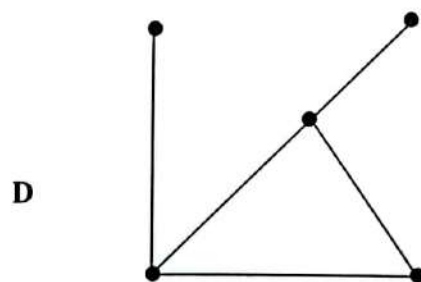
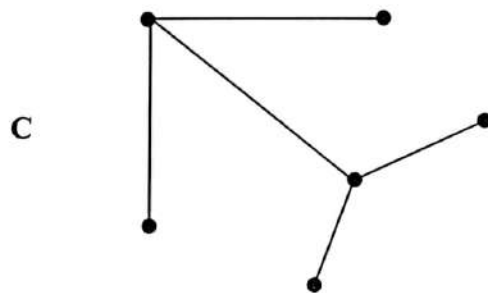
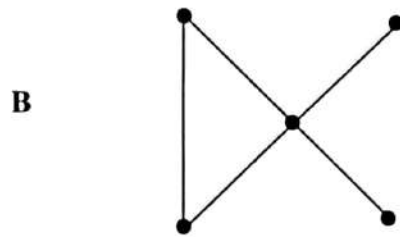
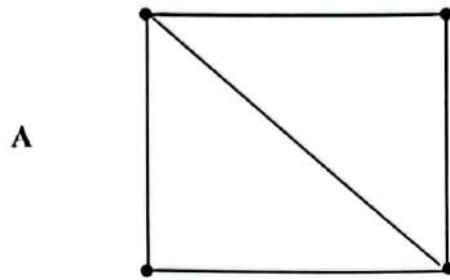
A $x < -2$

B $x > -2$

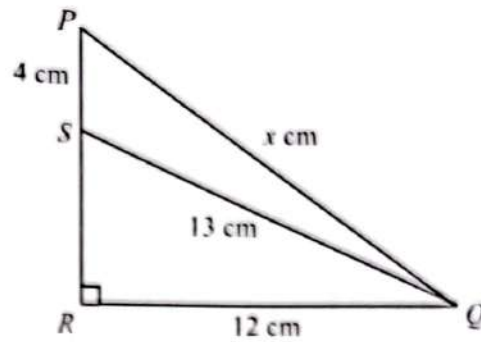
C $x < 2$

D $x > 2$

- 20 Antara yang berikut, graf manakah yang merupakan sebuah pokok?
Which of the following graphs is a tree?



21

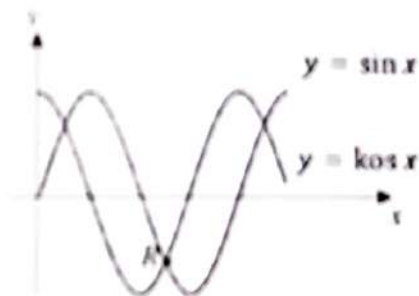


Rajah 6
Diagram 6

Rajah 6 menunjukkan segi tiga bersudut tegak PQR dan SQR . Cari nilai x .
Diagram 6 shows a right angle triangle PQR and SQR . Find the value of x .

- A 12.65 cm
- B 13.60 cm
- C 15.00 cm
- D 15.81 cm

22

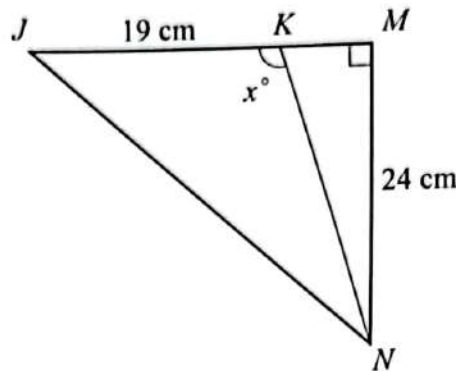


Rajah 7
Diagram 7

Rajah 7 menunjukkan graf bagi $y = \sin x$ dan $y = \cos x$. Koordinat y bagi titik R ialah
Diagram 7 shows the graphs of $y = \sin x$ and $y = \cos x$. The y -coordinate of R is

- A -1
- B -0.8660
- C -0.7071
- D -0.5

- 23 Dalam Rajah 8, JKM adalah garis lurus.
In Diagram 8, JKM is a straight line.



Rajah 8
 Diagram 8

Diberi $JM = 26$ cm. Cari nilai $\cos x^\circ$.

Given that $JM = 26$ cm. Find the value of $\cos x^\circ$.

- A $-\frac{7}{25}$
- B $-\frac{24}{25}$
- C $\frac{24}{25}$
- D $\frac{7}{25}$
- 24 Aini telah membuat simpanan tetap di bank ABC dengan kadar faedah sebanyak 3.7% setahun dengan kompaun setiap suku tahun. Beliau mula menyimpan RMx pada Januari 2018. Pada Januari 2022, simpanannya menjadi RM8 111.07. Berapakah simpanan awal yang telah disimpan oleh Aini.
- Aini has made a fixed deposit at ABC bank with an interest rate of 3.7% per annum compounded quarterly. She started saving RMx in January 2018. In January 2022, her savings increased to RM8 111.07. How much initial savings has Aini saved?*
- A 6 997
- B 7 000
- C 7 002
- D 7 014

- 25 Elizabeth mempunyai insurans perubatan dengan deduktibel tahunan sebanyak RM800 dan fasal penyertaan peratusan ko-insurans 80/20 dalam polisinya. Pada bulan Ogos 2022, Elizabeth telah menjalani suatu pembedahan kecil. Jika kos perubatan yang dilindungi polisi insurannya berjumlah RM22 500, hitung bayaran kos yang ditanggung oleh Elizabeth sendiri.

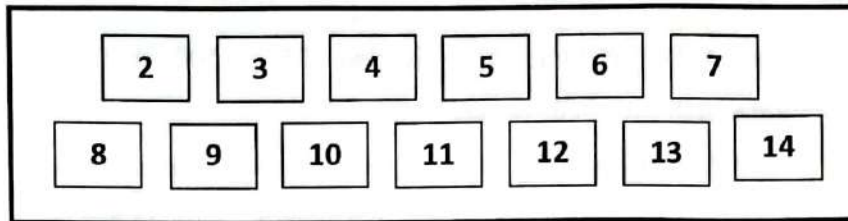
Elizabeth has a major medical insurance policy with a deductible provision of RM800 and an 80/20 co-insurance percentage participant clause in her policy. In August 2022, Elizabeth underwent a minor surgery. If the medical cost covered by her policy is RM22 500, calculate the cost borne by Elizabeth herself.

- A RM18 160
B RM17 360
C RM5 140
D RM4 340
- 26 Sufi memiliki sebuah kedai dengan keluasan 228 m². Jika kadar cukai tanah yang dikenakan ialah RM0.42 setiap meter persegi, hitung cukai tanah yang perlu dibayar oleh Sufi setiap tahun.

Sufi owns a shop with an area of 228 m². If the quit rent rate levied is RM0.42 per square metre, calculate the quit rent payable by Sufi every year.

- A RM88.75
B RM90.20
C RM95.76
D RM100.80

- 27 Rajah 9 menunjukkan sebilangan kad berlabel di dalam sebuah kotak
Diagram 9 shows some labelled cards in a box.



Rajah 9
 Diagram 9

Sekeping kad dipilih secara rawak dari kotak itu. Cari kebarangkalian bahawa kad berlabel nombor perdana dipilih.

A card is picked at random from the box. Find the probability that the card labelled with a prime number picked.

- A $\frac{7}{14}$
 B $\frac{6}{13}$
 C $\frac{6}{14}$
 D $\frac{7}{13}$

- 28 Diberi bahawa set $T = \{34, 34, 54, 59, 61, 62, 91\}$. Satu nombor dipilih secara rawak daripada unsur-unsur set T . Apakah kebarangkalian bahawa suatu nombor yang digit sa lebih besar dari digit puluh dipilih ?

It is given that set $T = \{34, 34, 54, 59, 61, 62, 91\}$. A number is chosen at random from the elements of set T . What is the probability that a number with unit digit is larger than tens digit is chosen?

- A $\frac{1}{7}$
 B $\frac{2}{7}$
 C $\frac{3}{7}$
 D $\frac{5}{7}$

- 29 Diberi persamaan bagi suatu garis lurus yang melalui titik (2, 3) ialah $2y - 4x + c = 0$. Cari koordinat bagi titik persilangan garis lurus tersebut dengan paksi- x .

Given the equation of a straight line which passes through point (2, 3) is $2y - 4x + c = 0$.

Find the coordinates of the point of intersection of the straight line with the x -axis.

- A (3, 0)
- B (1, 0)
- C (2, 0)
- D $\left(\frac{1}{2}, 0\right)$

- 30 Antara titik – titik berikut yang paling hampir pada titik asalan?

Which of the following points is the nearest to the origin?

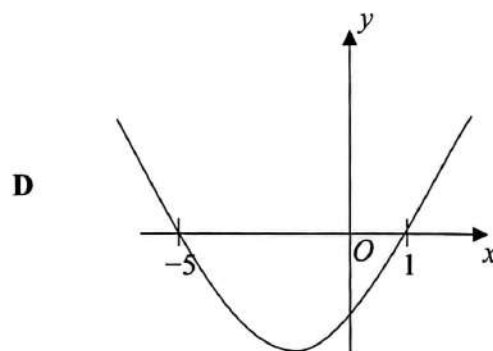
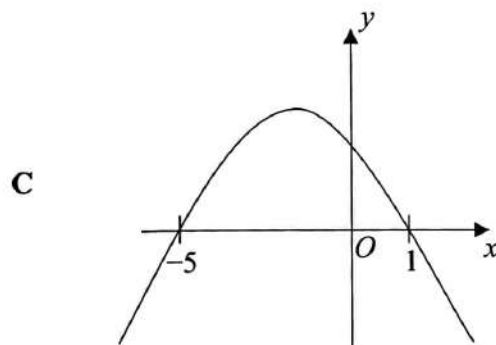
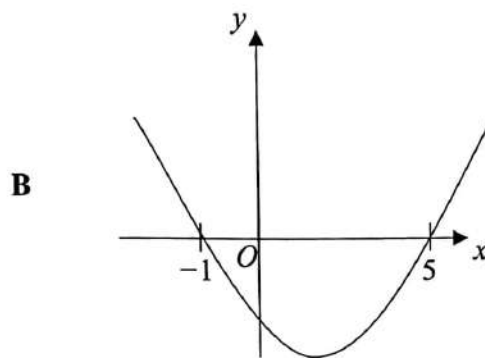
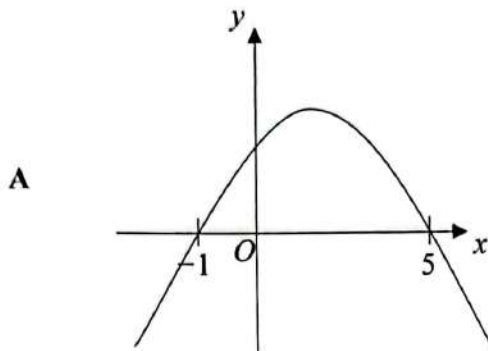
- A (3, 4)
- B (5, 12)
- C (0, -6)
- D (-3, 5)

- 31 Varians bagi 4, 6, 9, 3, 5 dan 8 ialah 3. Cari varians bagi 10, 14, 20, 8, 12 dan 18.

The variance of 4, 6, 9, 3, 5 and 8 is 3. Find the variance of 10, 14, 20, 8, 12 and 18.

- A 3
- B 6
- C 8
- D 12

- 32 Antara graf yang berikut, yang manakah mewakili $y = -4x + x^2 - 5$?
Which of the following graphs represents $y = -4x + x^2 - 5$?



- 33 Data dalam Jadual 1 di bawah menunjukkan skor bagi suatu permainan bagi sekumpulan murid.

The data in Table 1 below shows the score of a game of a group of students.

Skor / Score	1	2	3	4	5
Kekerapan / Frequency	8	k	10	7	2

Jadual 1

Table 1

Apakah nilai yang mungkin bagi k bagi data ini supaya mempunyai mod skor 2?

What is the possible value of k for the data to have the mode score 2?

- A 2
 B 8
 C 10
 D 11
- 34 Jadual 2 ialah sebuah jadual kekerapan yang menunjukkan bilangan e-mel yang dihantar oleh 36 orang pelajar dalam sebulan.

Table 2 is a frequency table which shows the number of e-mails sent by 36 students in a month.

Bilangan e-mel Number of e-mails	Kekerapan Frequency
10 - 19	10
20 - 29	8
30 - 39	6
40 - 49	5
50 - 59	7

Jadual 2

Table 2

Hitung min bilangan e-mel yang dihantar oleh seorang pelajar.

Calculate the mean number of e-mails sent by a student.

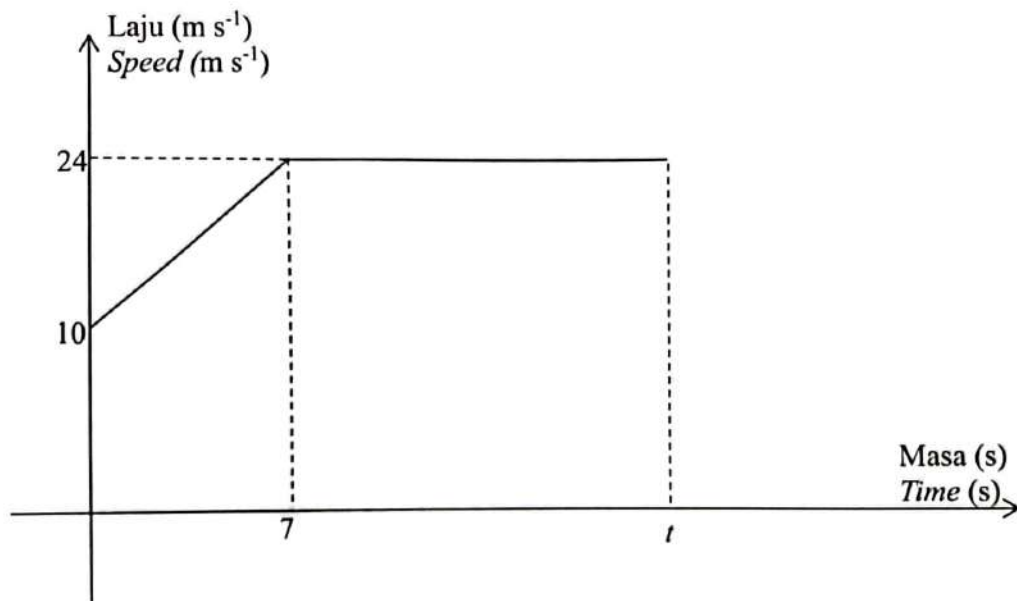
- A 35
 B 32
 C 30
 D 27

- 35 Rajah 10 menunjukkan graf laju-masa bagi pergerakan suatu zarah dalam tempoh t saat.

Diagram 10 shows the speed-time graph for the movement of a particle for a period of t seconds.

Diberi jarak yang dilalui oleh zarah itu dalam t saat ialah 239 m. Hitung nilai t dalam minit.

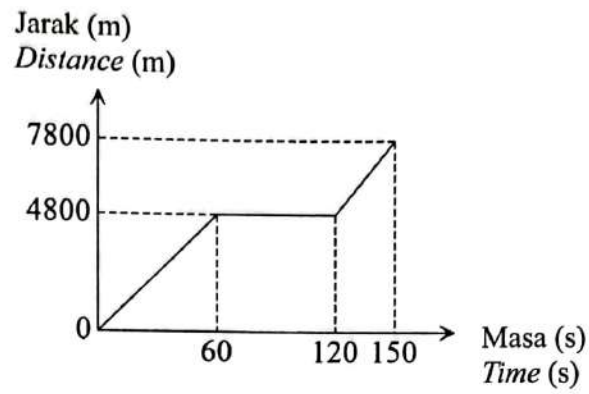
Given the distance travelled by the particle in t second is 239 m. Calculate the value of t in minute.



Rajah 10
Diagram 10

- A 0.2
- B 0.35
- C 12
- D 14

36



Rajah 11
Diagram 11

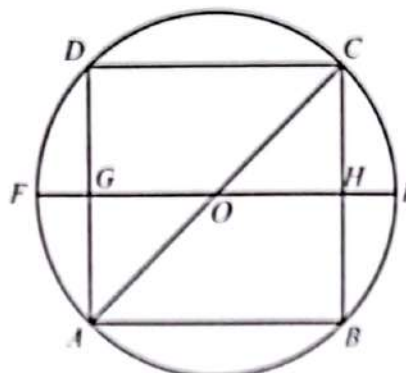
Kelajuan zarah itu, dalam m s^{-1} , bagi 30 saat yang terakhir ialah

The speed of the particle, in m s^{-1} , for the last 30 seconds is

- A 52
- B 80
- C 100
- D 160

- 37 Rajah 12 di bawah menunjukkan sebuah bulatan dengan pusat O dan segi empat $ABCD$, dimana $FGHI$ dan AOC merupakan garis lurus.

Diagram 12 shows a circle with centre O and a quadrilateral $ABCD$, where $FGHI$ and AOC are a straight line.



Rajah 12
Diagram 12

Titik X yang jaraknya adalah sentiasa sama dari titik A dan titik D . Manakah antara berikut yang paling tepat menerangkan locus X ?

Point X is always equidistant from point A and point D . Which of the following best describe locus X ?

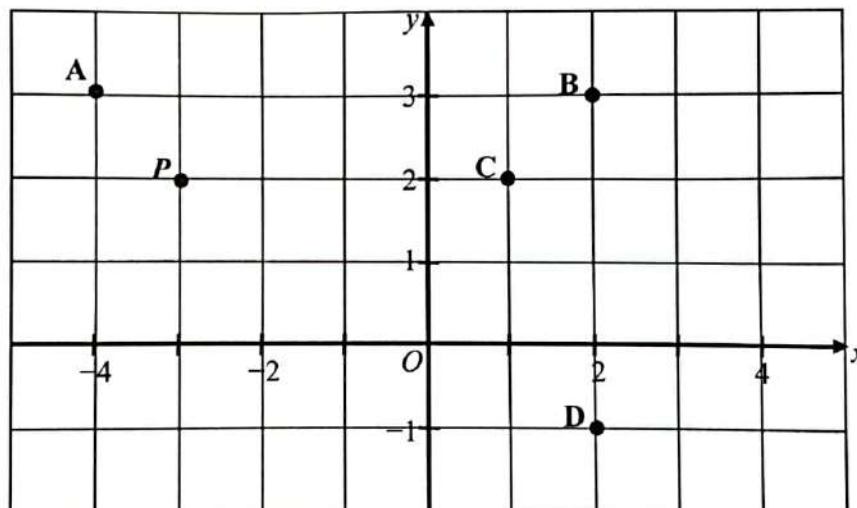
- A** Bulatan pada pusat A dan pusat D
Circles at centre A and centre D
- B** Sepasang garis lurus selari CD dan AB .
A pair of parallel lines CD and AB
- C** Garis lurus AC .
A straight line AC
- D** Pembahagi dua sama serenjang antara titik A dan titik D .
A perpendicular bisector between point A and point D .
- 38 $(3 \ 2 \ 5) + 3(-1 \ 3 \ 1) - 2(-3 \ 4 \ -2) =$
- A** $(6 \ 3 \ -3)$
- B** $(6 \ 3 \ 12)$
- C** $(2 \ 3 \ 8)$
- D** $(-2 \ 3 \ -6)$

- 39 Matriks songsang bagi $\begin{pmatrix} 4 & -6 \\ 6 & -7 \end{pmatrix}$ ialah $\frac{1}{p}\begin{pmatrix} -7 & 6 \\ -6 & q \end{pmatrix}$. Cari nilai $p + q$.

The inverse matrix of $\begin{pmatrix} 4 & -6 \\ 6 & -7 \end{pmatrix}$ is $\frac{1}{p}\begin{pmatrix} -7 & 6 \\ -6 & q \end{pmatrix}$. Find the value of $p + q$.

- A 12
 B 4
 C -12
 D -4
- 40 Diberi penjelmaan **U** ialah pantulan pada garis $x = -1$ dan penjelmaan **W** ialah putaran 90° ikut arah jam pada titik asalan.

Given transformation **U** is a reflection on the line $x = -1$ and transformation **W** is a rotation of 90° clockwise about the origin.



Rajah 13
 Diagram 13

- Antara titik **A**, **B**, **C** dan **D**, yang manakah imej di bawah gabungan transformasi **UW**?
 Which of the point **A**, **B**, **C** and **D**, is the image of the combined transformation **UW**?

KERTAS PEPERIKSAAN TAMAT