

1449/1
Matematik
Kertas 1
Oktober 2021
 $1\frac{1}{2}$ jam



**MODUL PEPERIKSAAN PERCUBAAN SPM 2021
SET 2**

MATEMATIK
Kertas 1
Satu jam tiga puluh minit

JANGAN BUKA MODUL INI SEHINGGA DIBERITAHU

1. *Modul ini mengandungi 40 soalan dalam dwibahasa.*
2. *Jawab semua soalan.*
3. *Rajah yang mengiringi soalan tidak dilukis mengikut skala kecuali dinyatakan.*
4. *Satu senarai rumus disediakan di halaman 2 dan 3.*
5. *Anda dibenarkan menggunakan kalkulator saintifik.*

Modul ini mengandungi 25 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

PERKAITAN
RELATIONS

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

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

6 Titik Tengah / midpoint $(x, y) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

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

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

8 Min = $\frac{\text{hasil tambah nilai data}}{\text{bilangan data}}$

Mean = $\frac{\text{sum of data}}{\text{number of data}}$

9 Min = $\frac{\text{hasil tambah (nilai titik tengah kelas} \times \text{kekerapan)}}{\text{hasil tambah kekerapan}}$

Mean = $\frac{\text{sum of (midpoint} \times \text{frequency)}}{\text{sum of frequencies}}$

10 Varians / Variance, $\sigma^2 = \frac{\Sigma(x - \bar{x})^2}{N} = \frac{\Sigma x^2}{N} - \bar{x}^2$

11 Varians / Variance, $\sigma^2 = \frac{\Sigma f(x - \bar{x})^2}{\Sigma f} = \frac{\Sigma fx^2}{\Sigma f} - \bar{x}^2$

12 Sisihan piawai / Standard deviation, $\sigma = \sqrt{\frac{\Sigma(x - \bar{x})^2}{N}} = \sqrt{\frac{\Sigma x^2}{N} - \bar{x}^2}$

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

14 Teorem Pithagoras / Pythagoras Theorem
 $c^2 = a^2 + b^2$

15 $P(A) = \frac{n(A)}{n(S)}$

16 $P(A') = 1 - P(A)$

17 $m = \frac{y_2 - y_1}{x_2 - x_1}$

18 $m = -\frac{\text{pintasan-y}}{\text{pintasan-x}}$

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

19 Faedah mudah / Simple interest, $I = Prt$

20 Nilai matang / Maturity value

$MV = P \left(1 + \frac{r}{n} \right)^{nt}$

21 Jumlah bayaran balik / Total amount payable

$A = P + Prt$

BENTUK DAN RUANG
SHAPES AND SPACE

- 1 Luas trapezium = $\frac{1}{2} \times \text{hasil tambah dua sisi selari} \times \text{tinggi}$
Area of trapezium = $\frac{1}{2} \times \text{sum of parallel sides} \times \text{height}$
- 2 Lilitan bulatan = $\pi d = 2\pi r$
Circumference of circle = $\pi d = 2\pi r$
- 3 Luas bulatan = πr^2
Area of circle = πr^2
- 4 Luas permukaan melengkung silinder = $2\pi r t$
Curved surface area of cylinder = $2\pi r h$
- 5 Luas permukaan sfera = $4\pi r^2$
Surface area of sphere = $4\pi r^2$
- 6 Isipadu prisma tegak = Luas keratan rentas \times panjang
Volume of right prism = cross sectional area \times length
- 7 Isipadu silinder = $\pi r^2 t$
Volume of cylinder = $\pi r^2 h$
- 8 Isipadu kon = $\frac{1}{3} \pi r^2 t$
Volume of cone = $\frac{1}{3} \pi r^2 h$
- 9 Isipadu sfera = $\frac{4}{3} \pi r^3$
Volume of sphere = $\frac{4}{3} \pi r^3$
- 10 Isipadu piramid tegak =
 $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$
Volume of right pyramid = $\frac{1}{3} \times \text{base area} \times \text{height}$
- 11 Hasil tambah sudut pedalaman poligon = $(n - 2) \times 180^\circ$
Sum of interior angles of a polygon = $(n - 2) \times 180^\circ$
- 12 $\frac{\text{panjang lengkok}}{\text{lilitan bulatan}} = \frac{\text{sudut pusat}}{360^\circ}$
 $\frac{\text{arc length}}{\text{circumference of circle}} = \frac{\text{angle subtended at centre}}{360^\circ}$
- 13 $\frac{\text{luas sektor}}{\text{luas bulatan}} = \frac{\text{sudut pusat}}{360^\circ}$
 $\frac{\text{area of sector}}{\text{area of circle}} = \frac{\text{angle subtended at centre}}{360^\circ}$
- 14 Faktor skala, $k = \frac{PA'}{PA}$
Scale factor, $k = \frac{PA'}{PA}$
- 15 Luas imej = $k^2 \times \text{luas objek}$
Area of image = $k^2 \times \text{area of object}$

Jawab **semua** soalan.

*Answer **all** questions.*

1. Menara Berkembar Petronas adalah Menara berkembar tertinggi di dunia iaitu dengan ketinggian 452 meter. Tukarkan 452_{10} kepada asas sembilan.

Petronas Twin Towers is the tallest twin tower in the world with a height of 452 meters.

Convert 452_{10} to base nine.

A 255_9

B 552_9

C 525_9

D 252_9

2. Hitung nilai bagi $3251_6 - 1413_6$.

Calculate the value of $3251_6 - 1413_6$.

A 1443_6

B 1738_6

C 1233_6

D 1434_6

3. Rahman akan menduduki peperiksaan SPM pada tahun ini. Dia telah tetapkan untuk membuat latihan matematik selama dua jam untuk setiap hari. Jika Rahman berjaya menjawab satu soalan dalam masa lima minit, hitung jumlah soalan yang berjaya dijawab oleh Rahman dalam masa 15 hari dan nyatakan dalam bentuk piawai.

Rahman will sit for the SPM examination this year. He has set out to do two hours of math practice for each day. If Rahman successfully answers one question in five minutes, calculate the number of questions that Rahman successfully answered in 15 days and state in standard form.

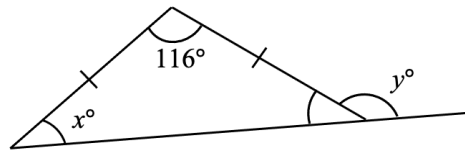
A 3.6×10^2

B 3.6×10

C 2.4×10

D 2.4×10^2

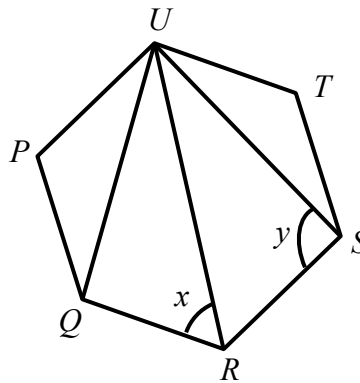
4. Rajah 1 di bawah menunjukkan sebuah segitiga.
 Diagram 1 below shows a triangle.



Rajah 1
 Diagram 1

Hitung nilai bagi $x^\circ + y^\circ$.
 Calculate the value of $x^\circ + y^\circ$.

- A 32°
 B 64°
 C 148°
 D 180°
5. Rajah 2 menunjukkan sebuah heksagon sekata $PQRSTU$.
 Diagram 2 shows a regular hexagon $PQRSTU$.

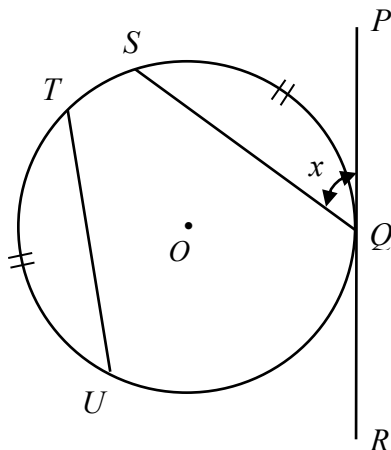


Rajah 2
 Diagram 2

Cari nisbah nilai x kepada nilai y .
 Find the ratio of the value of x to the value of y .

- A $1 : 2$
 B $1 : 3$
 C $1 : 4$
 D $2 : 3$

6. Dalam rajah 3, PQR ialah tangen kepada bulatan $QSTU$ dengan pusat O di Q . $\angle SQP = x^\circ$.
In Diagram 3, PQR is a tangent to circle $QSTU$ with centre O , at Q . $\angle SQP = x^\circ$.

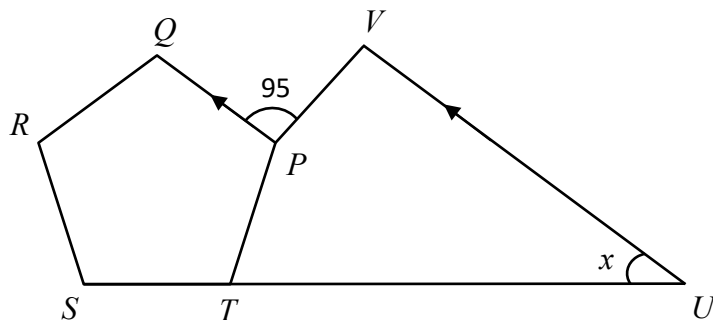


Rajah 3
 Diagram 3

Diberi lengkok $TU =$ lengkok SQ . Nyatakan $\angle TUO$.
Given that arc $TU =$ arc SQ . State $\angle TUO$.

- A** $90 - x$
B $90 - \frac{x}{2}$
C $180 - x$
D $180 - \frac{x}{2}$

7. Rajah 4 menunjukkan pentagon sekata $PQRST$ dan sisi empat, $PTUV$. STU ialah garis lurus.
Diagram 4 shows a regular pentagon $PQRST$ and a quadrilateral, $PTUV$. STU is a straight line.



Rajah 4
Diagram 4

Cari nilai x .

Find the value of x .

- A 36
- B 54
- C 60
- D 70

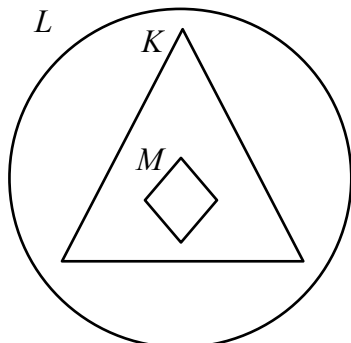
8. Diberi set semesta, $\xi = K \cup L \cup M$, $K \subset M$ dan $M \not\subset L$.

Gambar rajah Venn yang manakah mewakili maklumat itu?

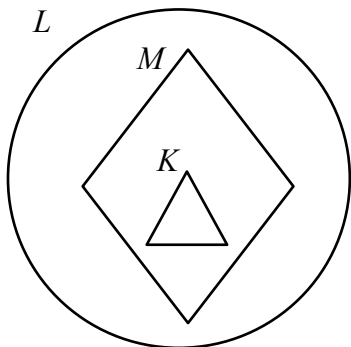
It is given the universal set, $\xi = K \cup L \cup M$, $K \subset M$ and $M \not\subset L$.

Which Venn diagram represents the information?

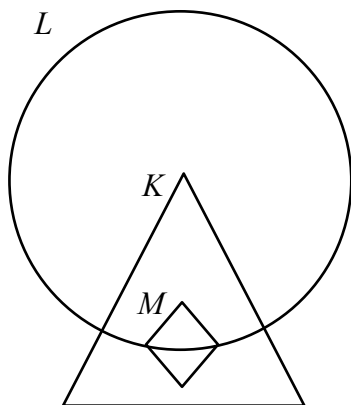
A



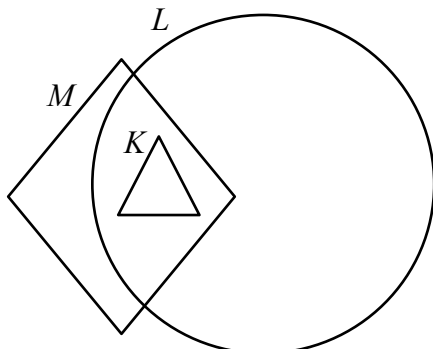
B



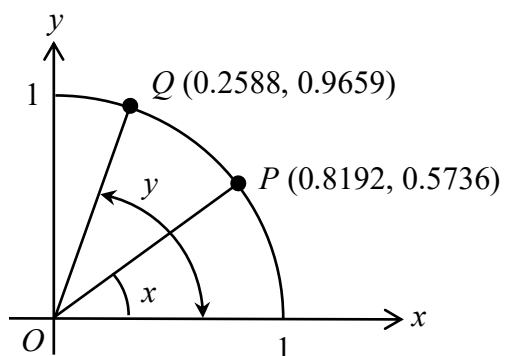
C



D



9. Dalam Rajah 5, titik P dan titik Q terletak pada lengkok suatu bulatan unit berpusat O
In Diagram 5, point P and point Q lie on the arc of a unit circle with centre O .



Rajah 5
Diagram 5

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

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

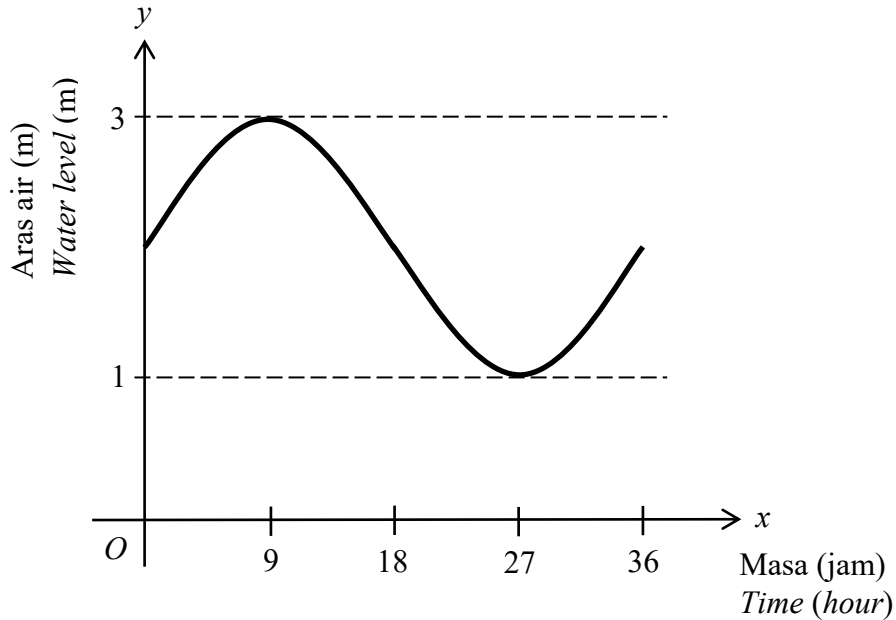
- A 0.8324
- B 1.078
- C 1.5395
- D 1.7851

10. Rajah 6 menggambarkan aras air yang direkodkan di sebuah pelabuhan. Diberi y mewakili aras air, dalam m, dan x mewakili masa, dalam jam.

Nyatakan fungsi trigonometri bagi graf tersebut dalam bentuk $y = a \sin bx + c$.

Diagram 6 depicts the water level recorded at a port. It is given that y represents the water level, in m, and x represents time, in hours.

State the trigonometric function of the graph in the form of $y = a \sin bx + c$.

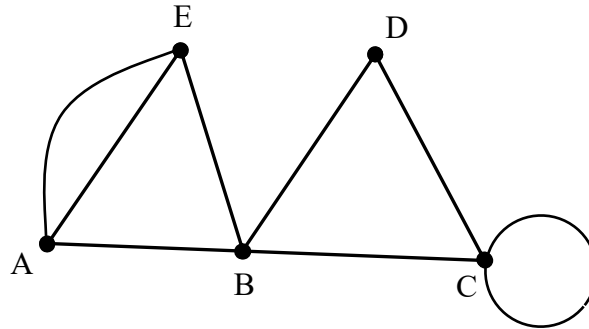


Rajah 6
Diagram 6

- A** $y = 2 \sin 10x + 1$
B $y = 2 \sin 9x + 1$
C $y = \sin 10x + 2$
D $y = \sin 9x + 2$

11. Encik Ravi menyimpan wang sebanyak RM9 600 di Bank Ceria dengan kadar faedah 4% setahun. Berapakah faedah yang diperolehi oleh Encik Ravi selepas 6 bulan?
Mr. Ravi keeps RM9 600 in Bank Ceria with an interest rate of 4% per annum. How much interest does Mr. Ravi get after 6 months?
- A** RM 576
B RM 384
C RM 192
D RM 144
12. Encik Chong menerima penyata kad kredit untuk bulan Mei 2021 dari Bank Setia. Penyata menunjukkan Encik Chong mempunyai baki tertunggak sebanyak RM4 500. Berapakah bayaran minimum yang harus dibayar oleh Encik Chong?
Mr. Chong received a credit card statement for May 2021 from Bank Setia. The statement shows that Mr. Chong has outstanding balance about RM4 500. What is the minimum payment need to be paid by Mr. Chong?
- A** RM 450
B RM 225
C RM 180
D RM 67.50
13. Diberi $x = 2$ ialah paksi simetri bagi fungsi kuadratik $f(x) = 2x^2 - 8x - 7$. Tentukan koordinat titik minimum bagi fungsi kuadratik ini.
Given that $x = 2$ is the axis of symmetry of the quadratic function $f(x) = 2x^2 - 8x - 7$. Determine the coordinates of minimum point for this quadratic function.
- A** (2, - 7)
B (2, - 8)
C (2, - 13)
D (2, - 15)

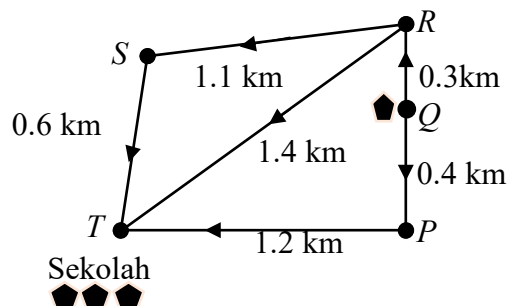
14. Rajah 7 di bawah menunjukkan graf yang mempunyai gelung dan berbilang tepi.
Diagram 7 below shows a graph with a loop and multiple edges.



Rajah 7
Diagram 7

Tentukan bilangan tepi dan bilangan darjah bagi graf tersebut.
Determine the number of edges and the sum of degrees of the graph.

- A $n(E) = 8, \Sigma d(v) = 16$
 B $n(E) = 8, \Sigma d(v) = 15$
 C $n(E) = 7, \Sigma d(v) = 15$
 D $n(E) = 7, \Sigma d(v) = 14$
15. Rajah 8 menunjukkan graf terarah dari rumah Faris di Q , ke sekolah di T . Tentukan laluan terbaik yang dipilih oleh Faris untuk ke sekolah dengan mengambil kira jarak terpendek.
Diagram 8 shows a directed graph from Faris's house in Q to the school in T . Determine the best route Faris chooses go to school taking the shortest distance.

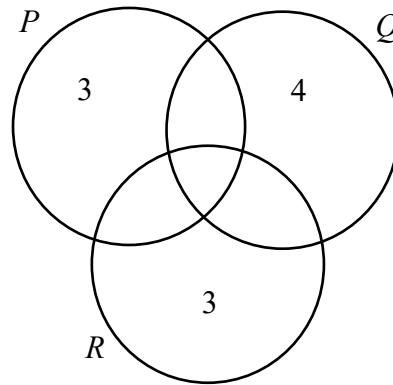


Rajah 8
Diagram 8

- A $Q \rightarrow R \rightarrow T$
 B $Q \rightarrow P \rightarrow T$
 C $Q \rightarrow R \rightarrow S \rightarrow T$
 D $Q \rightarrow R \rightarrow P \rightarrow T$

16. Rajah 9 ialah gambar rajah Venn yang menunjukkan bilangan murid yang terlibat dalam suatu gotong-royong.

Diagram 9 is a Venn diagram that shows the number of students involved in a gotong-royong.



Rajah 9
Diagram 9

Diberi bahawa set semesta, $\xi = P \cup Q \cup R$,

Set $P = \{\text{murid bertugas di blok } P\}$,

Set $Q = \{\text{murid bertugas di blok } Q\}$ dan

Set $R = \{\text{murid bertugas di blok } R\}$.

Jumlah murid yang terlibat dalam aktiviti gotong-royong ini ialah seramai 28 orang. Jika bilangan murid yang ditugaskan di mana-mana dua blok adalah sama dan tiada murid yang ditugaskan di ketiga-tiga blok, cari bilangan murid yang bertugas di blok R .

It is given that the universal set, $\xi = P \cup Q \cup R$,

Set $P = \{\text{student assigned to block } P\}$,

Set $Q = \{\text{student assigned to block } Q\}$ and

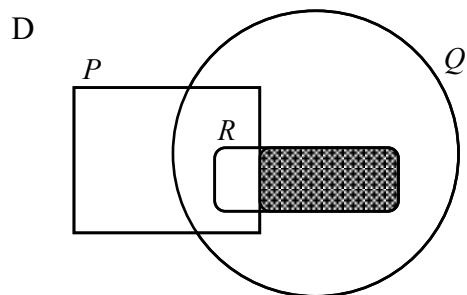
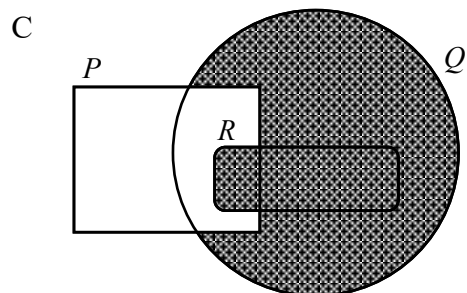
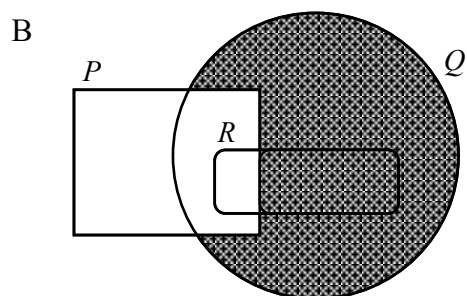
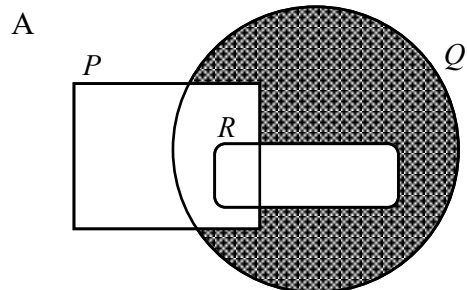
Set $R = \{\text{student assigned to block } R\}$.

The total number of students involved in this gotong-royong is 28. If the number students assigned to any two blocks is the same and there is no student assigned to all three blocks, find the number of students assigned to block R .

- A** 12
- B** 13
- C** 15
- D** 18

17. Diberi bahawa set semesta, $\xi = P \cup Q \cup R$. Antara berikut, rajah Venn yang manakah mewakili $P' \cup R$?

Given that the universal set, $\xi = P \cup Q \cup R$. which of the following Venn diagrams represent $P' \cup R$?

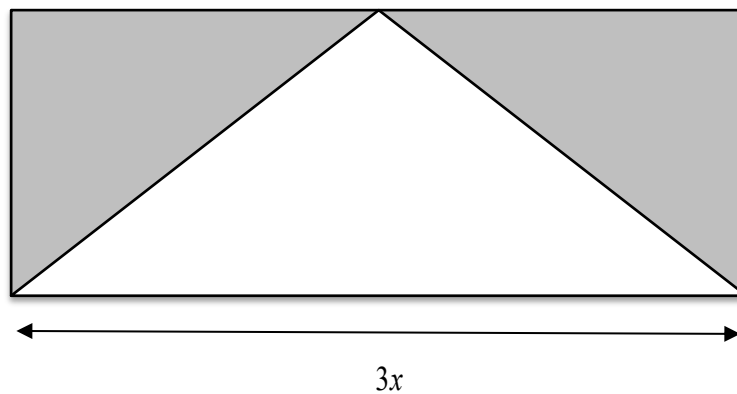


18. Hitung nilai $\sqrt{160}$ dan nyatakan jawapan betul kepada dua tempat perpuluhan.
Calculate the value of $\sqrt{160}$ and state the correct answer to two decimal places.

- A** 12.00
B 12.64
C 12.65
D 12.649

19. Rajah 10 menunjukkan dinding berbentuk segi empat tepat. Luas sebuah dinding berbentuk segi empat tepat ialah $(3x^2 + 9x)$ meter persegi. Dinding tersebut ingin dilukis corak geometri seperti rajah di bawah dan akan dicat mengikut bentuk geometrinya. Jika lebar dinding itu ialah $3x$ meter dan dua segi tiga bersudut tegak yang sama saiz itu ingin dicat dengan warna kelabu, berapakah luas kawasan yang akan dicat selain warna kelabu?

Diagram 10 shows a rectangular wall. The area of a rectangular wall is $(3x^2 + 9x)$ square meters. The wall will be painted in geometric pattern according to the shape of the geometry such as the diagram below. If the width of the wall is $3x$ meters and two upright-angled triangles of the same size is painted in grey, calculate the area which is painted in a different colour than grey.



Rajah 10 / Diagram 10

- A** $3x^2$
B $x + 3$
C $3x + 9$
D $1.5x^2 + 4.5x$

20. Diberi $y = \sqrt{\frac{x-4}{3x}}$, maka $x =$

Given that $y = \sqrt{\frac{x-4}{3x}}$, then $x =$

A $-\frac{4}{3y^2 - 1}$

B $-\frac{4}{1 - 3y^2}$

C $3y + 4$

D $\frac{3y^2}{4}$

21. $6m^3 \times 2m^2 =$

A $8m^5$

B $8m^6$

C $12m^5$

D $12m^6$

22. Permudahkan $\left(4^{\frac{3}{2}} \div 2^4 \times 2^{-2}\right)^3$.

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

A 2^{-9}

B 2^{-3}

C 2^3

D 2^9

23. $9x^2y^6 \div 27y^2 \times 3x^2 =$

- A x^4y^4
- B x^5y^8
- C $\frac{1}{3}x^3y^4$
- D $\frac{1}{3}x^5y^8$

24. Harga sebuah majalah lama yang dilelong ialah RM y . Zafran membeli 6 buah majalah dengan jumlah bayaran RM15. Bentuk persamaan linear dalam satu pemboleh ubah yang manakah yang tepat bagi pernyataan tersebut.

The price of an old magazine being auctioned is RM y . Zafran bought 6 magazines for a total payment of RM15. Form a linear equation in one variable which is accurate for the statement.

- A $y = 15$
- B $6y = 15$
- C $15y = 6$
- D $90y = 15$

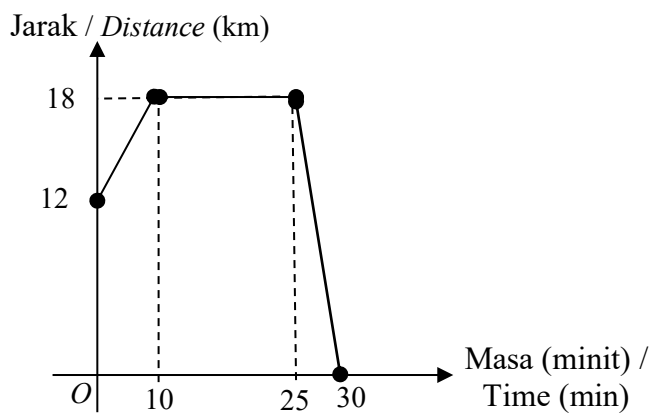
25. Helmi membeli n bungkus gula-gula yang berharga RM1.60 setiap bungkus. Dia membayar RM20 dan menerima baki lebih daripada RM4. Binakan satu ketaksamaan untuk n .

Helmi bought n packets of sweets that cost RM1.60 each. He paid RM20 and received a balance that was more than RM4. Form an inequality for n .

- A $n \geq 10$
- B $n > 10$
- C $n \leq 10$
- D $n < 10$

26. Rajah 11 menunjukkan graf jarak-masa bagi sebuah kereta dalam tempoh 30 minit. Cari tempoh, dalam minit, di mana kereta itu pegun.

Diagram 11 shows the distance-time graph of a car for a period of 30 minutes. Find the period of time, in minutes, during which the car is stationary.

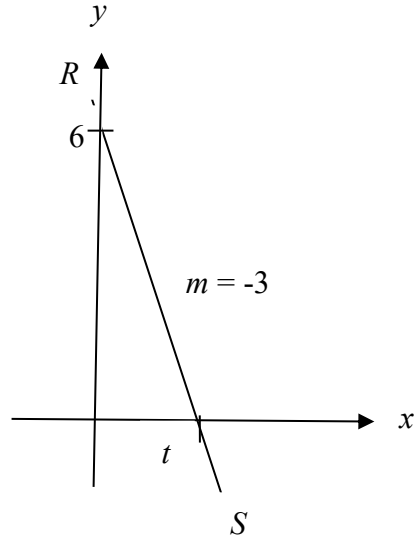


Rajah 11
Diagram 11

- A 10
- B 15
- C 25
- D 30

27. Dalam Rajah 12, RS ialah garis lurus. Diberi bahawa kecerunan bagi garis lurus RS ialah -3 . Cari nilai bagi t .

In Diagram 12, RS is a straight line. Given the gradient of the straight line RS is -3 . Find the value of t .



Rajah 12
Diagram 12

- A 2
- B 3
- C 4
- D 6

28. Tentukan koordinat bagi imej $M(5, 7)$ di bawah translasi $\begin{pmatrix} 2 \\ -4 \end{pmatrix}$.

Determine the coordinate for image $M(5, 7)$ under the translation $\begin{pmatrix} 2 \\ -4 \end{pmatrix}$.

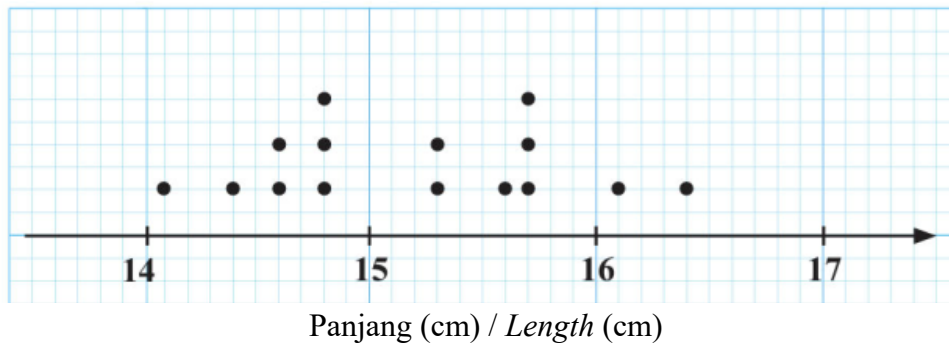
- A $M'(3, 3)$
- B $M'(1, 9)$
- C $M'(7, 3)$
- D $M'(3, 11)$

29. Data di bawah menunjukkan jumlah perbelanjaan bagi 10 orang murid darjah 1 dalam satu hari. Tentukan median bagi perbelanjaan mereka.

The data below shows the total expenditure for 10 primary 1 students in one day. Determine the median of their expenses.

RM 2	RM 3	RM 4	RM 2	RM 4	RM 2	RM 2	RM 3	RM 5	RM 3
------	------	------	------	------	------	------	------	------	------

- A RM 2
 B RM 3
 C RM 4
 D RM 5
30. Rajah 13 menunjukkan plot titik bagi kepanjangan, dalam cm, beberapa jenis sampel ikan peliharaan air tawar.
Diagram 13 shows a point plot for the length, in cm, of some types of freshwater pet fish samples.



Rajah 13
 Diagram 13

Apakah beza panjang, dalam mm, antara sampel ikan terpanjang dan sampel ikan terpendek?

What is the difference in length, in mm, between the longest fish sample and the shortest fish sample?

- A 2.3
 B 2.4
 C 23
 D 24

31. Jadual 1 menunjukkan bilangan gol yang diperoleh oleh 20 pemain bola jaring dalam satu permainan. Tentukan sisihan piawai bagi taburan ini.
Table 1 shows the number of goals scored by 20 netball players in one game. Determine the standard deviation of this distribution.

Bilangan gol <i>Number of goals</i>	0	1	2	3	4
Bilangan pemain <i>Number of players</i>	3	5	6	5	1

Jadual 1
Table 1

- A** 1.122
B 1.26
C 5.56
D 8.8
32. Antara berikut yang manakah kunci komponen matlamat kewangan?
Which of the following is a key component of financial goals?
- I. Khusus.
Specific.
- II. Tidak boleh diukur.
Measureless.
- III. Boleh dicapai.
Attainable.
- IV. Realistik.
Realistic.
- A** I, II dan / *and* III
B I, II dan / *and* IV
C I, III dan / *and* IV
D II, III dan / *and* IV
33. Pendapatan aktif Puan Dila ialah RM2 300. Perbelanjaan tetap dan perbelanjaan tidak tetapnya masing-masing ialah RM3 650 dan RM1 350. Berapakah pendapatan pasif Puan Dila supaya aliran tunai dalam bulan itu adalah positif?
An active income of Puan Dila is RM2 300. Her fixed expenses and variable expenses are RM3 650 and RM1 350 respectively. What is the passive income of Puan Dila so the cash flow of the month is positive?
- A** RM 2300
B RM 2500
C RM 2700
D RM 2900

34. Jadual 2 di bawah menunjukkan kadar premium tahunan bagi setiap RM 1000 nilai muka insurans sementara boleh baharu tahunan yang ditawarkan oleh Syarikat Insurans ZZ.

Table 2 shows the annual premium rate per RM1 000 face value of a yearly renewable term insurance offered by Syarikat Insurans ZZ.

Umur <i>Age</i>	Lelaki / <i>Male</i> (RM)		Perempuan / <i>Female</i> (RM)	
	Bukan perokok <i>Non-smoker</i>	Perokok <i>Smoker</i>	Bukan perokok <i>Non-smoker</i>	Perokok <i>Smoker</i>
34	2.09	2.68	1.42	1.75
35	2.15	2.74	1.47	1.80
36	2.21	2.80	1.52	1.85

Jadual 2

Table 2

Nyatakan dua faktor yang menyebabkan kenaikan kadar premium berdasarkan jadual tersebut.

State two factors that cause the increase in premium rate based on the table.

- I. Umur.
Age.
 - II. Bukan Perokok.
Non-smoker.
 - III. Perokok.
Smoker.
 - IV. Kadar Premium.
Premium rate.
- A** I dan / *and* II
B I dan / *and* III
C I dan / *and* IV
D II dan / *and* IV

35. Jadual 3 di bawah menunjukkan Encik Jonathan menginsuranskan rumahnya dengan insurans kebakaran.

Table 3 below shows that Mr Jonathan insured his house with fire insurance.

Nilai boleh insurans rumahnya <i>His house insurable value</i>	RM 420000
Ko-insurans <i>Co-insurance</i>	80 % daripada nilai boleh insurans rumahnya. <i>80 % of his house's insurable value.</i>
Deduktibel <i>Deductible</i>	RM 5000

Jadual 3

Table 3

Dia menginsuranskan rumahnya dengan jumlah insurans yang diperlukan. Hitung jumlah pampasan yang diterima oleh Encik Jonathan jika rumahnya musnah sepenuhnya.

He insured his house at the amount of required insurance. Calculate the compensation amount received by Mr Jonathan if his house is completely burnt down.

- A** RM 331000
B RM 336000
C RM 378000
D RM 415000
36. Satu nombor dipilih secara rawak daripada set $S : \{ 3, 5, 9, 12, 16, 25, 27, 29 \}$. Cari kebarangkalian bahawa nombor yang dipilih itu ialah kuasa dua sempurna.
A number is chosen at random from set $S : \{ 3, 5, 9, 12, 16, 25, 27, 29 \}$. Find the probability that the number chosen is a perfect square.

- A** $\frac{3}{8}$
B $\frac{1}{2}$
C $\frac{3}{4}$
D $\frac{5}{8}$

37. Anggaran sewa bulanan rumah Encik Azman ialah RM670 dan kadar cukai pintu ialah 6%. Hitung cukai pintu yang perlu dibayar oleh Encik Azman untuk setengah tahun.

Estimation of monthly rental of Mr Azman's house is RM670 and the property assessment tax rate is 6%. Calculate the property assessment tax payable by Mr Azman for each half-year.

- A RM 482.40
- B RM 402.00
- C RM 284.00
- D RM 241.20

38. Jadual 4 di bawah menunjukkan beberapa nilai pemboleh ubah x dan y dengan keadaan y berubah secara songsang dengan punca kuasa dua x .

Table 4 below shows some values of the variable x and y where y varies inversely as the square root of x .

x	25	100
y	2	1

Jadual 4

Table 4

Cari hubungan anatara x dan y .

Find the relationship between x and y .

- A $y = 10\sqrt{x}$
- B $y = \frac{10}{\sqrt{x}}$
- C $y = 25\sqrt{x}$
- D $y = \frac{25}{\sqrt{x}}$

39. Diberi bahawa x berubah secara langsung dengan kuasa tiga y dan secara songsang dengan punca kuasa dua z dan $x = \frac{1}{4}$ apabila $y = 2, z = 64$. Ungkapkan x dalam sebutan y dan z .
It is given that x varies directly as the cube of y and inversely as the square root of z and $x = \frac{1}{4}$ when $y = 2, z = 64$. Express x in terms of y and z .

- A** $x = \frac{4y^3}{\sqrt{z}}$
- B** $x = \frac{1}{4}y^3z^{\frac{1}{2}}$
- C** $x = \frac{y^2}{4z^{\frac{1}{2}}}$
- D** $x = \frac{y^3}{4z^{\frac{1}{2}}}$

40. $\begin{pmatrix} 4 & 6 \\ 3 & 1 \end{pmatrix} + 2\begin{pmatrix} 5 & 2 \\ -2 & 3 \end{pmatrix} - \begin{pmatrix} -1 & -5 \\ 8 & 4 \end{pmatrix} =$

- A** $\begin{pmatrix} 10 & 3 \\ -7 & 0 \end{pmatrix}$
- B** $\begin{pmatrix} 10 & 13 \\ -7 & 0 \end{pmatrix}$
- C** $\begin{pmatrix} 15 & 15 \\ -9 & 3 \end{pmatrix}$
- D** $\begin{pmatrix} 15 & 5 \\ -9 & 3 \end{pmatrix}$

KERTAS SOALAN TAMAT
END OF QUESTION PAPER