

SULIT

1449/1

Matematik

Kertas 1

Julai / Ogos

2026

1½ jam



MAJLIS PENGETUA SEKOLAH MALAYSIA
NEGERI SEMBILAN

PROGRAM PENINGKATAN AKADEMIK TINGKATAN LIMA
SEKOLAH MENENGAH NEGERI SEMBILAN 2026

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 **23** halaman bercetak dan **1** halaman tidak 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

$$1 \quad a^m \times a^n = a^{m+n}$$

$$2 \quad a^m \div a^n = a^{m-n}$$

$$3 \quad (a^m)^n = a^{mn}$$

$$4 \quad a^{\frac{1}{n}} = \sqrt[n]{a}$$

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

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

$$7 \quad \text{Faedah mudah / Simple interest,} \\ I = Prt$$

$$8 \quad \text{Nilai Matang / Maturity Value,}$$

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

$$9 \quad \text{Jumlah bayaran balik / Total repayment, } A = P + Prt$$

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

10

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

11

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

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

PERKAITAN DAN ALGEBRA RELATIONSHIP AND ALGEBRA

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

$$2 \quad \text{Titik Tengah / midpoint}$$

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

$$3 \quad \text{Laju purata} = \frac{\text{Jumlah jarak}}{\text{Jumlah masa}}$$

$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}}$$

$$4 \quad m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$5 \quad A^{-1} = \frac{1}{ad - bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$$

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

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



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

$$\frac{\text{Arc length}}{2\pi r} = \frac{\theta}{360^\circ}$$
- 6
$$\frac{\text{Luas sektor}}{\pi j^2} = \frac{\theta}{360^\circ}$$

$$\frac{\text{Area of sector}}{\pi r^2} = \frac{\theta}{360^\circ}$$
- 7 Luas layang = $\frac{1}{2} \times$ hasil darab panjang dua pepenjuru
Area of kite = $\frac{1}{2} \times$ 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 = $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$
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, $\bar{x} = \frac{\sum fx}{\sum f}$
- 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 Diberi dua persamaan garis lurus iaitu $y - 2x = 3$ dan $y = 7 + (k - 2)x$. Jika kedua-dua garis ini adalah selari, apakah nilai k yang mungkin.

Given two equations of a straight line namely $y - 2x = 3$ and $y = 7 + (k - 2)x$. If these two lines are parallel, what is the possible value of k .

- A 4
- B 0
- C 2
- D -4

- 2 Dalam suatu pertandingan, peluang Ah Chong menang ialah $\frac{1}{4}$ dan peluang Badri menang ialah $\frac{3}{8}$. Jika hanya seorang pemenang dipilih dan kedua-duanya tidak boleh menang serentak, apakah kebarangkalian tiada seorang pun daripada mereka menang?

In a competition, the chance of Ah Chong winning is $\frac{1}{4}$ and the chance of Badri winning is $\frac{3}{8}$. If only one winner is chosen and both cannot win at the same time, what is the probability that neither of them wins?

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



SERTAI TELEGRAM @exercise_students

- 3 Diberi bahawa $y \propto \frac{x^q}{z^p}$ dan y berubah secara langsung dengan punca kuasa tiga x dan secara songsang dengan punca kuasa dua dengan z . Hitung nilai $p - q$.

It is given that $y \propto \frac{x^q}{z^p}$ and y varies directly as cube root of x and inversely as square root of z . Calculate the value of $p - q$.

- A $\frac{5}{6}$
- B 1
- C -1
- D $\frac{1}{6}$

- 4 Rahim memiliki sebuah pangsapuri servis di Seremban dan sewanya dianggarkan RM900 sebulan. Setiap tahun beliau membayar cukai pintu sebanyak RM432. Hitung kadar cukai pintu bagi pangsapuri servis itu.

Rahim owns a serviced apartment in Seremban and the rent is estimated at RM900 per month. Every year he pays the property assessment tax of RM432. Calculate the property assessment tax rate of service apartment.

- A 4.0%
- B 4.8%
- C 8.3%
- D 9.0%

- 5 Diberi $\frac{1}{y^x} = 4^{-3}$, cari nilai $y - x$.

Given $\frac{1}{y^x} = 4^{-3}$, find the value of $y - x$.

- A -7
- B -1
- C 1
- D 7

- 6 Amin mempunyai polisi perubatan dengan deduktibel RM2 200 dan peratusan ko-insurans 70/30 dalam polisinya. Hitung bayaran kos yang ditanggung oleh Amin jika rawatan perubatannya ialah RM18 000?

Amin has a medical policy with a deductible of RM2 200 and a co-insurance percentage of 70/30 in his policy. Calculate the cost borne by Amin if his medical treatment is RM18 000?

- A RM4 740
B RM6 940
C RM7 600
D RM8 860

- 7 Antara pernyataan berikut, yang manakah **tidak benar**?

*Which of the following statements is **not true**?*

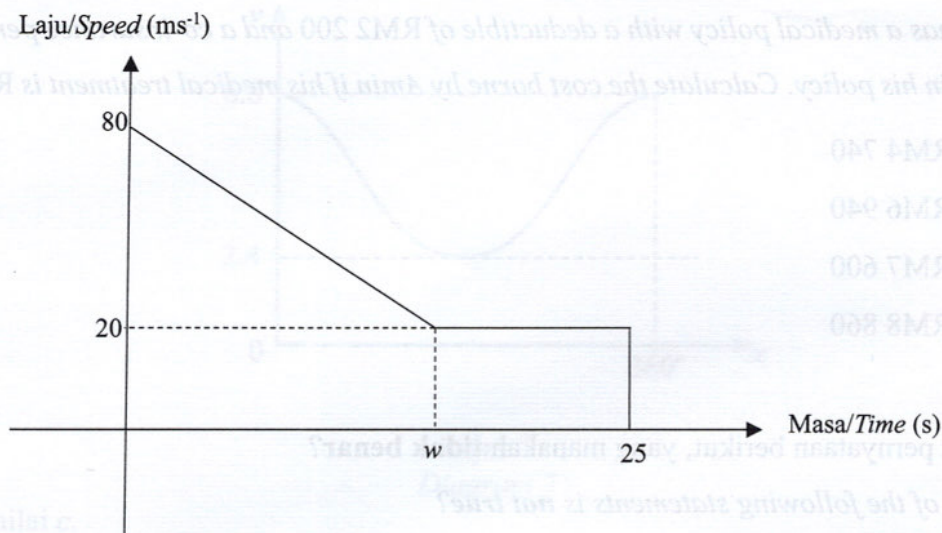
- A $Q \subset P \cup Q$
B $\{ \} \subset P \cup Q$
C $(P \cup Q) \subset (P \cup Q)$
D $Q' \subset P \cup Q$

- 8 Antara pasangan matriks berikut, yang manakah boleh didarabkan?

Which of the following pairs of matrices can be multiplied?

- A $\begin{bmatrix} 5 & -1 \end{bmatrix} \begin{bmatrix} 3 \\ 4 \end{bmatrix}$
B $\begin{bmatrix} 9 \\ 3 \end{bmatrix} \begin{bmatrix} 1 & 2 \\ 0 & 3 \end{bmatrix}$
C $\begin{bmatrix} 2 & 3 \end{bmatrix} \begin{bmatrix} 2 \\ 1 \\ 4 \end{bmatrix}$
D $\begin{bmatrix} 2 & 6 \end{bmatrix} \begin{bmatrix} 5 & 1 \end{bmatrix}$

- 9 Rajah 1 menunjukkan graf laju-masa gerakan suatu zarah untuk tempoh 25 saat.
Diagram 1 shows the speed-time graph of the motion of a particle for a period of 25 seconds.



Rajah 1
Diagram 1

Pecutan zarah itu dalam w saat yang pertama ialah -4 ms^{-2} . Hitung nilai w .

The acceleration of the particle in the first w seconds is -4 ms^{-2} . Calculate the value of w .

- A 20
B 15
C 10
D 5
- 10 Faktorkan $112 - 63p^2$ dengan lengkapnya.

Factorise $112 - 63p^2$ completely.

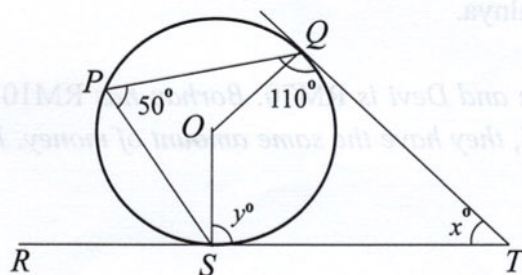
- A $-7(4 - 3p)(4 - 3p)$
B $-7(4 + 3p)(4 - 3p)$
C $7(4 - 3p)(4 + 3p)$
D $7(4 - 3p)(4 - 3p)$

- 11 Permudahkan
Simplify

$$\frac{a^2 - b^2}{3c + 3d} \times \frac{15c + 15d}{a - b}$$

- A $5(a - b)$
 B $\frac{5(a + b)}{a - b}$
 C $5(a + b)$
 D $5(a - b)^2$
- 12 Dalam Rajah 2, RST dan TQ ialah tangen kepada bulatan PQS dengan pusat O pada titik S dan titik Q .

In Diagram 2, RST and TQ are a tangent to the circle PQS with centre O at point S and point Q .



Rajah 2
Diagram 2

Cari nilai $y - x$.

Find the value of $y - x$.

- A 10
 B 30
 C 60
 D 70

- 13 Sebuah model kubus dibina daripada kad manila. Isi padu kubus itu ialah $\frac{1}{8}(4x-2)^3 \text{ cm}^3$.
Cari jumlah luas permukaan kubus tersebut dalam sebutan x .

*A cube model is made using manila card. The volume of the cube is $\frac{1}{8}(4x-2)^3 \text{ cm}^3$.
Find the total surface area of the cube in terms of x .*

- A $6(2x-1)^2$
B $6(4x-2)^2$
C $3(4x-2)^2$
D $3(2x-1)^2$

- 14 Jumlah wang Borhan dan Devi ialah RM70. Wang Borhan ialah RM10 lebih daripada wang Devi. Selepas Borhan memberi RM5 kepada Devi, wang mereka menjadi sama banyak. Cari wang Borhan pada asalnya.

The total money of Borhan and Devi is RM70. Borhan has RM10 more than Devi. After Borhan gives RM5 to Devi, they have the same amount of money. Find Borhan's original amount of money.

- A RM30
B RM35
C RM40
D RM45



SERTAI TELEGRAM @exercise_students

- 15 Set data berikut disusun mengikut tertib menaik. Min bagi data tersebut ialah 8 dan median ialah x .

$$4, 6, x, x + 2, 12$$

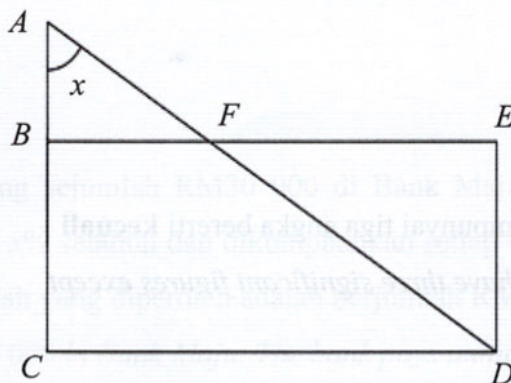
Cari nilai x .

The following data are arranged in ascending order. The mean of the data is 8 and the median is x .

$$4, 6, x, x + 2, 12$$

Find the value of x .

- A 7
B 8
C 9
D 10
- 16 Pada Rajah 3, $BCDE$ ialah satu segiempat tepat dan ABF ialah satu segitiga.
In Diagram 3, $BCDE$ is a rectangle and ABF is a triangle.



Rajah 3
Diagram 3

AFD dan ABC garis lurus, $AB = 6$ cm dan $ED = 20$ cm. Diberi bahawa $\cos x = \frac{1}{3}$, cari panjang, dalam cm, bagi AD .

AFD and ABC are straight lines, $AB = 6$ cm and $ED = 20$ cm. Given that $\cos x = \frac{1}{3}$, find the length, in cm, of AD .

- A 78
B 80
C 82
D 84

- 17 Tiga kumpulan murid mengambil ujian Matematik. Markah yang diperoleh adalah seperti Jadual 1.

Three groups of students sit for a Mathematics test. The scores obtained are as Table 1.

Kumpulan Group	Markah Score
P	6, 8, 10, 12
Q	7, 8, 10, 11
R	5, 8, 11, 14

Jadual 1

Table 1

Kumpulan manakah yang mempunyai prestasi paling konsisten?

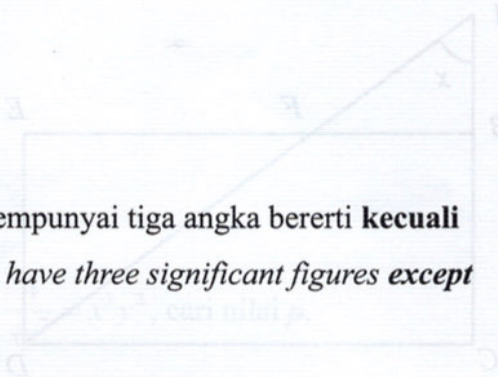
Which group shows the most consistent performance?

- A Kumpulan P
Group P
- B Kumpulan Q
Group Q
- C Kumpulan R
Group R
- D Semua sama
All are the same

- 18 Semua nombor berikut mempunyai tiga angka bererti **kecuali**

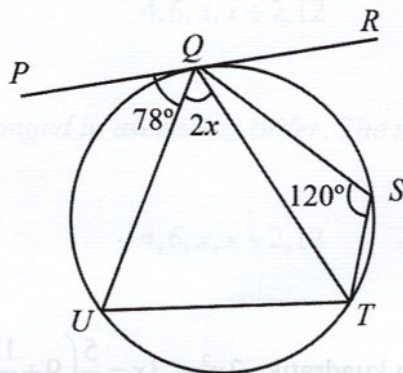
All the following numbers have three significant figures except

- A 0.06250
- B 0.0633
- C 6.10
- D 58.0



- 19 Rajah 4 menunjukkan sebuah bulatan. PQR ialah tangen kepada bulatan pada titik Q .

Diagram 4 shows a circle. PQR is a tangent to the circle at point Q .



Rajah 4
Diagram 4

Cari nilai x .

Find the value of x .

- A 45
B 30
C 21
D 18
- 20 Andrian menyimpan wang sejumlah RM30 000 di Bank Maju. Pihak bank membayar faedah tahunan sebanyak $x\%$ setahun dan dikompaunkan setiap 4 bulan sekali. Pada akhir tahun ketiga, jumlah faedah yang diperoleh adalah berjumlah RM5 328.96. Hitung nilai x .
- Andrian deposited RM30 000 in Bank Maju. The bank pays annual interest of $x\%$ per year, compounded every 4 months. At the end of the third year, the total interest earned was RM5 328.96. Calculate the value of x .
- A 4.0
B 4.5
C 5.0
D 5.5

- 21 Ungkapkan $1 \times 7^5 + 4 \times 7^3 + 3 \times 7^2 + 5 \times 7$ sebagai suatu nombor asas tujuh.

Express $1 \times 7^5 + 4 \times 7^3 + 3 \times 7^2 + 5 \times 7$ as a base seven number.

- A 14350₇
 B 143500₇
 C 104350₇
 D 104035₇

- 22 Cari punca-punca bagi persamaan kuadratik $2x^2 + 3x = \frac{5}{3} \left(9 + \frac{12}{5}x \right)$.

Find the roots of the quadratic equation $2x^2 + 3x = \frac{5}{3} \left(9 + \frac{12}{5}x \right)$.

- A $x = -3, x = \frac{5}{2}$
 B $x = 5, x = -\frac{3}{2}$
 C $x = -5, x = \frac{3}{2}$
 D $x = 3, x = -\frac{5}{2}$

- 23 Diberi bahawa $(64x^p)^{\frac{1}{3}} \div \frac{4}{xy^2} = x^3y^2$, cari nilai p .

Given that $(64x^p)^{\frac{1}{3}} \div \frac{4}{xy^2} = x^3y^2$, find the value of p .

- A 6
 B 7
 C 8
 D 9

- 24 Sherly telah membeli insurans kebakaran untuk rumahnya. Syarikat insurans telah menetapkan bahawa nilai boleh insurans rumah tersebut ialah RM350 000. Polisi insurans yang dibeli itu mempunyai peruntukan ko-insurans untuk menginsuranskan 80% daripada nilai boleh insurans hartanya dan deduktibel sebanyak RM4 000. Rumah Sherly telah mengalami kebakaran dan jumlah kerugiannya adalah sebanyak RM35 000. Hitung jumlah insurans yang telah dibeli oleh Sherly jika dia menerima pampasan sebanyak RM22 875.

Sherly has purchased fire insurance for her house. The insurance company has determined that the insurable value of the house is RM350 000. The insurance policy purchased has a co-insurance provision to insure 80% of the insurable value of her property and a deductible of RM4 000. Sherly's house was damaged by fire and the total loss was RM35 000. Calculate the amount of insurance purchased by Sherly if she received compensation of RM22 875.

- A RM183 000
B RM215 000
C RM268 750
D RM276 000

- 25 Selesaikan
Solve

$$\frac{746.5 \times 10^{-3}}{10^{-7}} =$$

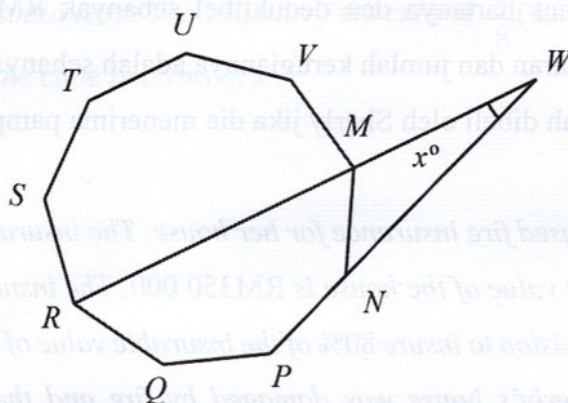
- A 7.465×10^7
B 7.465×10^6
C 7.465×10^{-6}
D 7.465×10^{-7}



SERTAI TELEGRAM @exercise_students

- 26 Dalam Rajah 5, $MNPQRSTU$ ialah sebuah poligon sekata. PNW dan RMW ialah garis lurus.

In Diagram 5, $MNPQRSTU$ is a regular polygon. PNW and RMW are straight lines.



Rajah 5
Diagram 5

Cari nilai x .

Find the value of x .

- A 5
B 10
C 15
D 20
- 27 Jadual 2 menunjukkan skor yang diperoleh Kelvin dalam suatu permainan.

Table 2 shows the score obtained by Kelvin in a game.

Skor Score	0	1	2	3	4	5
Kekerapan Frequency	3	7	8	7	3	3

Jadual 2
Table 2

Cari skor median.

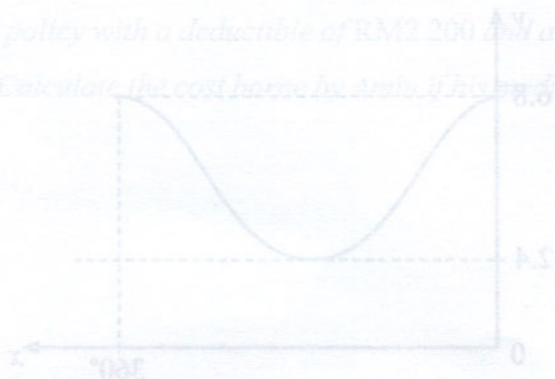
Find the median score.

- A 3
B 2
C 1
D 0

- 28 Cari penyelesaian bagi $-3x \leq 2(x+10)$.

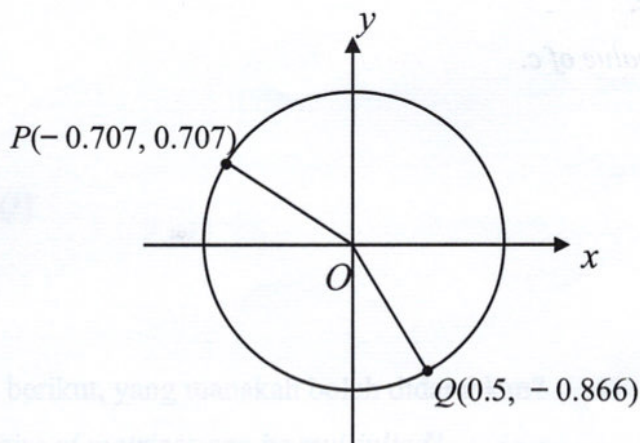
Find solution for $-3x \leq 2(x+10)$.

- A $x \leq -2$
B $x \geq -2$
C $x \leq -4$
D $x \geq -4$



- 29 Rajah 6 menunjukkan sebuah bulatan unit.

Diagram 6 shows a unit circle.



Rajah 6
Diagram 6

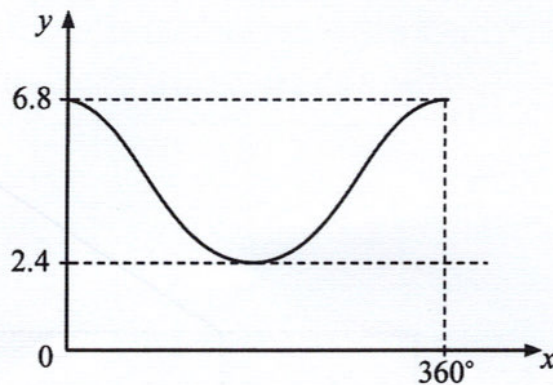
Cari nilai sudut bagi sektor minor POQ .

Find the value of the angle of the minor sector POQ .

- A 150°
B 165°
C 180°
D 190°

- 30 Rajah 7 menunjukkan graf fungsi $y = 2.2 \cos x + c$.

Diagram 7 shows a graph of function $y = 2.2 \cos x + c$.



Rajah 7
Diagram 7

Tentukan nilai c .

Determine the value of c .

- A 3.4
B 4.4
C 4.6
D 5.6
- 31 Satu pokok mempunyai 8 bucu dan n tepi. Nyatakan nilai n .

A tree have 8 vertices and n edges. State the value of n .

- A 4
B 5
C 6
D 7

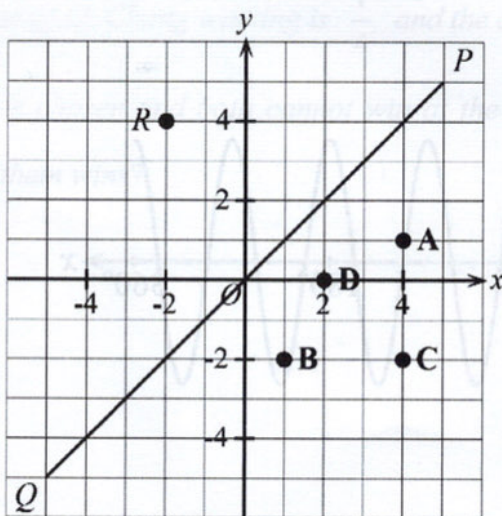
- 32 Pada bulan Julai 2026, Adham menerima jumlah pendapatan sebanyak RM5 500. Perbelanjaan tetap dan perbelanjaan tidak tetap bulanan masing-masing ialah RM3 780 dan RM y . Pada hujung bulan, Adham mempunyai aliran tunai negatif sebanyak RM690. Hitung nilai y .

In July 2026, Adham received a total income of RM5 500. The fixed expenses and variable expenses are RM3 780 and RM y respectively. At the end of the month, Adham had a negative cash flow of RM690. Calculate the value of y .

- A RM1 030
- B RM2 410
- C RM4 810
- D RM6 190

- 33 Dalam Rajah 8, PQ adalah garis lurus.

In Diagram 8, PQ is a straight line.



Rajah 8
Diagram 8

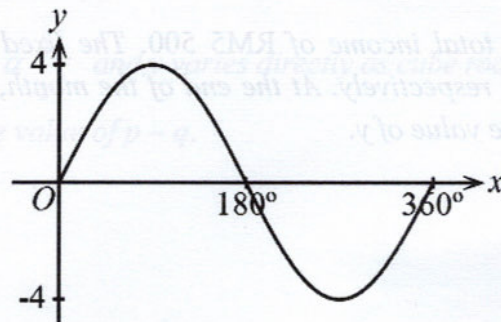
Antara titik-titik A, B, C dan D, yang manakah imej bagi titik R di bawah pantulan di garis PQ ?

Which of the points A, B, C and D is the image of point R under a certain reflection in the line PQ ?

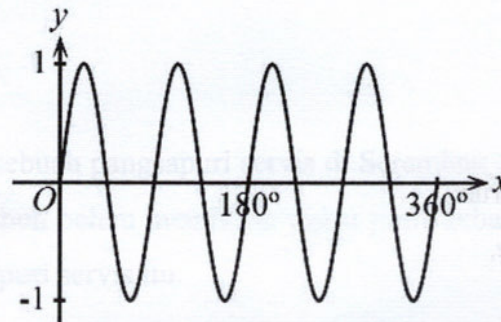
34 Antara yang berikut, yang manakah mewakili graf $y = \cos 4x^\circ$ untuk $0^\circ \leq x \leq 360^\circ$?

Which of the following represents the graph of $y = \cos 4x^\circ$ for $0^\circ \leq x \leq 360^\circ$?

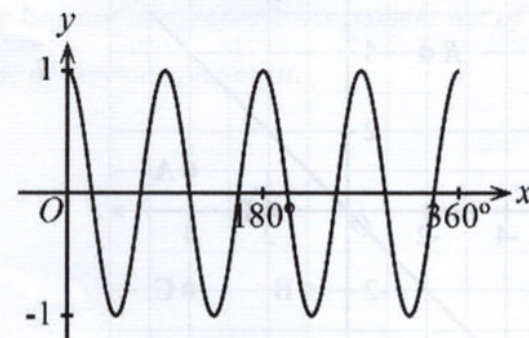
A



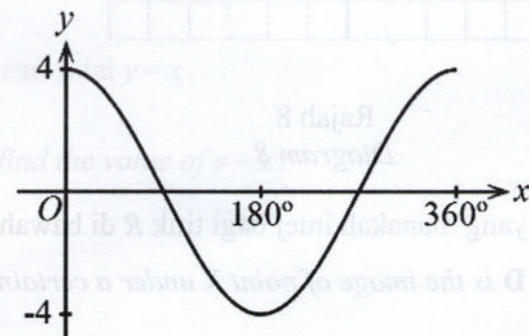
B



C



D



SERTAI TELEGRAM @exercise_students

35 Premis 1: _____

Premise 1: _____

Premis 2: $(x + 4)(x + 10) = 0$

Premise 2: $(x + 4)(x + 10) = 0$

Kesimpulan: $x = -4$ atau $x = -10$

Conclusion: $x = -4$ or $x = -10$

Berdasarkan maklumat di atas, lengkapkan Premis 1.

Based on the information above, complete Premise 1.

A Jika $(x + 4)(x + 10) = 0$, maka $x = -4$ atau $x = -10$

If $(x + 4)(x + 10) = 0$, then $x = -4$ or $x = -10$

B Jika $(x + 4) = 0$, maka $x = -4$

If $(x + 4) = 0$, then $x = -4$

C Jika $(x + 4) = 0$, maka $(x + 10) = 0$

If $(x + 4) = 0$, then $(x + 10) = 0$

D Jika $(x + 10) = 0$, maka $(x + 4) = 0$

If $(x + 10) = 0$, then $(x + 4) = 0$

36 Jadual 3 menunjukkan beberapa nilai bagi pembolehubah C dan D .

Table 3 shows some values of the variables C and D .

C	52	86
D	26	n

Jadual 3
Table 3

Diberi bahawa C berubah secara langsung dengan D . Cari nilai n .

It is given that C varies directly as D . Find the value of n .

A 86

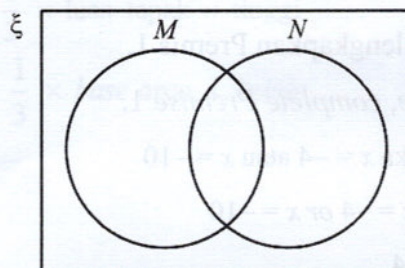
B 60

C 43

D 15

- 37 Rajah 9 menunjukkan sebuah gambar rajah Venn dengan set semesta $\xi = \{\text{Pelajar-pelajar dalam kelas 5A}\}$, set $M = \{\text{Pelajar-pelajar yang lulus dalam ujian Matematik}\}$, dan set $N = \{\text{Pelajar-pelajar yang lulus dalam ujian Sains}\}$.

Diagram 9 shows a Venn diagram with the universal set $\xi = \{\text{Students in class 5A}\}$, set $M = \{\text{Students who are passed the Mathematics test}\}$ and set $N = \{\text{Students who are passed the Science test}\}$.



Rajah 9
Diagram 9

Diberi $n(M) = 13$, $n(N) = 11$, $n(M \cap N') = 9$, dan bilangan pelajar yang tidak lulus dalam kedua-dua ujian ialah 11 orang. Hitung jumlah bilangan pelajar dalam kelas 5A.

Given that $n(M) = 13$, $n(N) = 11$, $n(M \cap N') = 9$, and the number of students who failed both of the tests is 11 persons. Calculate the total number of students in class 5A.

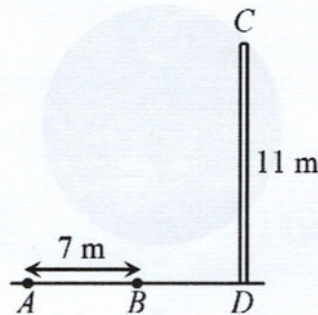
- A 24
B 31
C 35
D 44
- 38 Sebuah kotak mengandungi 17 biji bola kuning dan 14 biji bola biru. Hock Seng memasukkan lagi 5 biji bola kuning dan 2 biji bola biru ke dalam kotak itu. Sebiji bola dipilih secara rawak daripada kotak itu. Cari kebarangkalian bahawa bola yang dipilih itu ialah sebiji bola kuning.

A box contains 17 yellow balls and 14 blue balls. Hock Seng puts another 5 yellow balls and 2 blue balls into the box. A ball is chosen at random from the box. Find the probability that the ball chosen is a yellow ball.

- A $\frac{1}{19}$
B $\frac{5}{31}$
C $\frac{5}{38}$
D $\frac{11}{19}$

- 39 Dalam Rajah 10, CD ialah menara mencancang. ABD adalah mengufuk.

In Diagram 10, CD is a vertical tower. ABD is horizontal.



Rajah 10
Diagram 10

Sudut tunduk A dari C ialah 30.1° . Kira sudut dongakan C dari B .

The angle of depression of A from C is 30.1° . Calculate the angle of elevation of C from B .

- A $32^\circ 28'$
- B $42^\circ 34'$
- C $47^\circ 26'$
- D $57^\circ 32'$

- 40 Selesaikan
Solve

$$5 \begin{pmatrix} 5 & -3 \\ 3 & -10 \end{pmatrix} - 4 \begin{pmatrix} 2 & -6 \\ 6 & -5 \end{pmatrix} =$$

- A $\begin{pmatrix} 17 & -39 \\ -9 & -30 \end{pmatrix}$
- B $\begin{pmatrix} 17 & -39 \\ -9 & 20 \end{pmatrix}$
- C $\begin{pmatrix} 17 & 9 \\ -9 & -30 \end{pmatrix}$
- D $\begin{pmatrix} 33 & -39 \\ -9 & 20 \end{pmatrix}$



KERTAS SOALAN TAMAT
END OF QUESTION PAPER