

NAMA : TINGKATAN :

MODUL PENINGKATAN PRESTASI MURID TINGKATAN 5
TAHUN 2024

MATEMATIK
KERTAS 1
1 JAM 30 MINIT

- 1 Modul ini mengandungi 40 soalan dan 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, 3 dan 4.
- 5 Anda dibenarkan mengguna kalkulator saintifik.

JANGAN BUKA MODUL INI SEHINGGA DIBERITAHU

Modul ini mengandungi 27 halaman bercetak .

NOMBOR DAN OPERASI NUMBER 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 $a^{\frac{m}{n}} = (a^{\frac{1}{n}})^m = (a^{\frac{1}{n}})^m$
- 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*, $A = P + Prt$
- 10
$$\text{Premium} = \frac{\text{Nilai muka polisi}}{\text{RMx}} \times (\text{Kadar premium per RMx})$$

$$\text{Premium} = \frac{\text{Face value of policy}}{\text{RMx}} \times (\text{Premium rate per RMx})$$
- 11
$$\text{Jumlah insurans yang harus dibeli} = \left(\frac{\text{Peratusan}}{\text{ko-insurans}} \right) \times \left(\frac{\text{Nilai boleh}}{\text{insurans harta}} \right)$$

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

PERKAITAN DAN ALGEBRA RELATIONSHIP AND ALGEBRA

- 1 Jarak / *Distance*

$$= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$
- 2 Titik Tengah / *midpoint*

$$(x, y) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$
- 3 Laju Purata = $\frac{\text{Jumlah jarak}}{\text{Jumlah masa}}$

$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}}$$
- 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 $= \pi d = 2\pi r$
Circumference of circle $= \pi d = 2\pi r$
- 4 Luas bulatan $= \pi r^2$
Area of circle $= \pi r^2$
- 5
$$\frac{\text{Panjang lengkok}}{2\pi r} = \frac{\theta}{360^\circ}$$

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

$$\frac{\text{Area of sector}}{\pi r^2} = \frac{\theta}{360^\circ}$$
- 7 Luas layang-layang $= \frac{1}{2} \times$ hasil darab panjang dua pepenjuru
Area of kite $= \frac{1}{2} \times$ product of the length 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 $= 2\pi r^2 + 2\pi rh$
Surface area of cylinder $= 2\pi r^2 + 2\pi rh$
- 10 Luas permukaan kon $= \pi r^2 + \pi rs$
Surface area of cone $= \pi r^2 + \pi rs$
- 11 Luas permukaan sfera $= 4\pi r^2$
Surface area of sphere $= 4\pi r^2$
- 12 Isi padu prisma $=$ luas keratan rentas $\times$ tinggi
Volume of prism $=$ cross sectional area $\times$ height
- 13 Isi padu silinder $= \pi r^2 h$
Volume of cylinder $= \pi r^2 h$

- 14 Isi padu kon = $\frac{1}{3}\pi r^2 h$
Volume of cone = $\frac{1}{3}\pi r^2 h$
- 15 Isi padu sfera = $\frac{4}{3}\pi r^3$
Volume of sphere = $\frac{4}{3}\pi r^3$
- 16 Isi padu piramid = $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$
Volume of 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 $P(A') = 1 - P(A)$

Jawab semua soalan
Answer all questions

- 1 Diberi $177_{10} = m53_6$, cari nilai m .

Given $177_{10} = m53_6$, find the value of m .

- A 2
- B 3
- C 4
- D 5

- 2 Berikut merupakan suatu jujukan nombor.

The following is a number sequence.

8, 24, x , 216, y , 1944, ...

Hitung nilai $x + y$.

Calculate then value of $x + y$.

- A 718
- B 720
- C 248
- D 246

- 3 Ungkapkan 259.78 dalam bentuk piawai dan betul kepada dua angka bererti.

Express 259.78 in standard form and correct to two significant figures.

- A 2.5×10^2
- B 2.59×10^2
- C 2.6×10^2
- D 2.60×10^2

4 Permudahkan

Simplify

$$\frac{4mn^7 \times 2m^4n}{3m^{-2} \times 6mn^5}$$

A $\frac{m^6n^3}{2}$

B $\frac{2m^2n^2}{9}$

C $\frac{4m^4n^3}{9}$

D $\frac{8m^5n^3}{3}$

- 5 Diberi bahawa p berubah secara langsung dengan $\sqrt{q}$ dan $p = \frac{1}{2}$ apabila $q = 36$.

Ungkapkan p dalam sebutan q .

Given that p varies directly with $\sqrt{q}$ and $p = \frac{1}{2}$ when $q = 36$.

Express p in terms of q .

A $p = \frac{\sqrt{q}}{3}$

B $p = \frac{\sqrt{q}}{12}$

C $p = 3\sqrt{q}$

D $p = 12\sqrt{q}$

6 Jadual 6 menunjukkan perubahan tiga kuantiti.

Table 6 shows the change of three quantities.

p	2	$\frac{1}{2}$
q	9	4
r	3	x

Jadual /Table 6

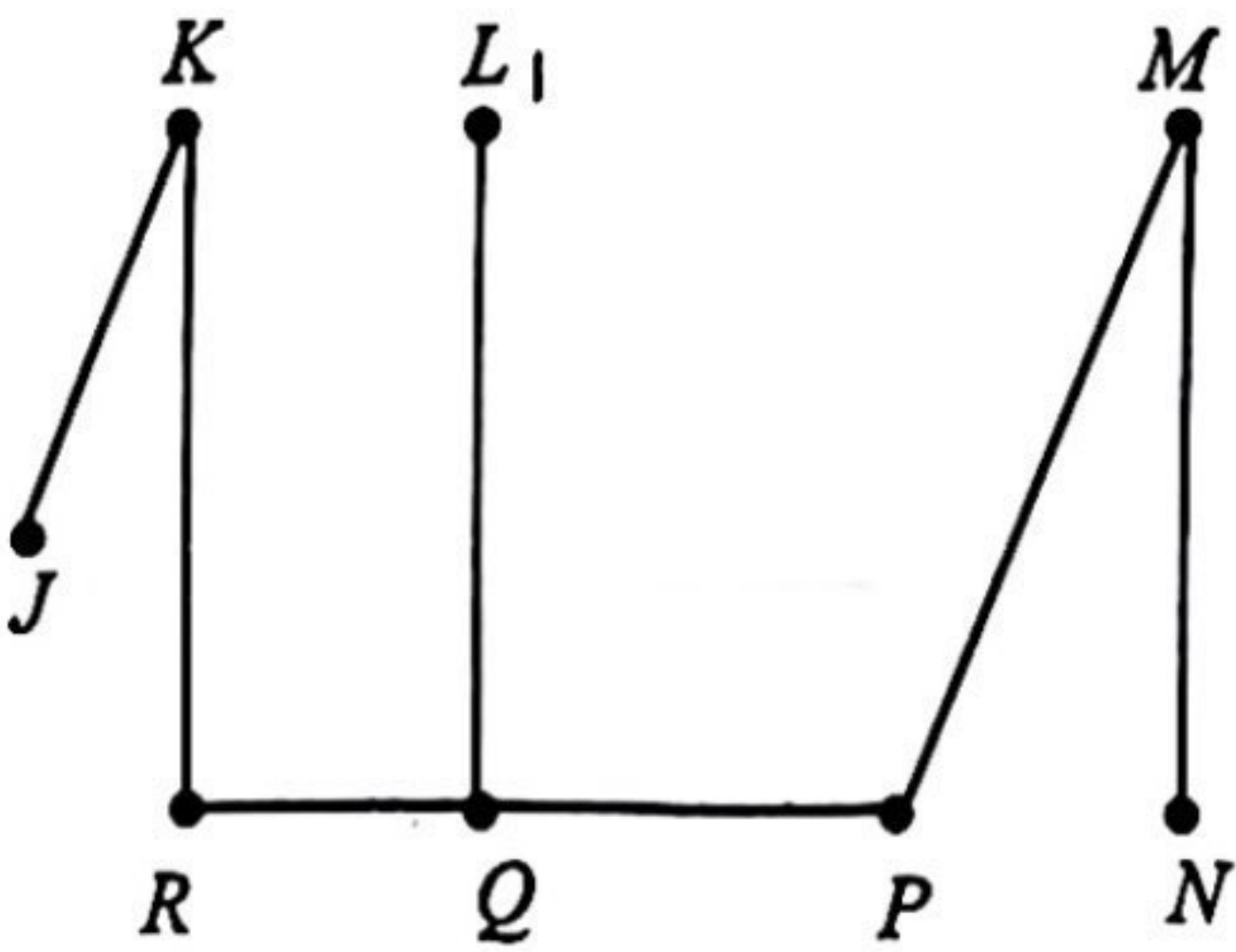
Diberi bahawa $p \propto \frac{q}{r^2}$. Tentukan nilai x .

Given that $p \propto \frac{q}{r^2}$. Determine the value of x .

- A 2
- B 4
- C 8
- D 16

7 Rajah 7 menunjukkan suatu graf mudah.

Diagram 7 shows a simple graph.



Rajah /Diagram 7

Berdasarkan Rajah 7, bucu yang manakah menunjukkan bilangan darjah yang paling banyak?

Based on Diagram 7, which vertex shows the highest number of degrees?

- A K
- B L
- C P
- D Q

- 8 Jadual 8 menunjukkan bilangan mata yang dikumpul oleh sekumpulan pelajar dalam satu pertandingan.
Table 8 shows the number of points collected by a group of students in a competition.

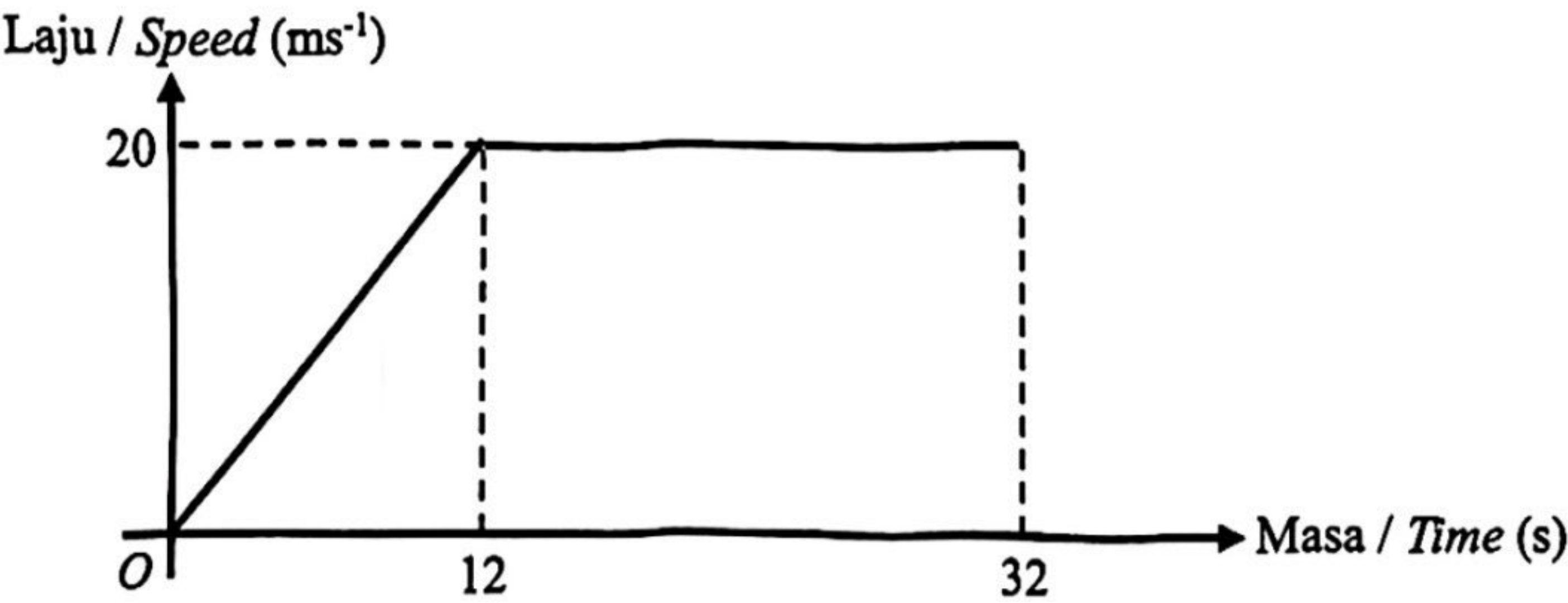
Bilangan mata <i>Number of points</i>	21 – 25	26 – 30	31 – 35	36 – 40	41 – 45
Kekerapan <i>Frequency</i>	3	6	8	2	4

Jadual /Table 8

Hitung min bagi bilangan mata yang diperolehi kumpulan itu.
Calculate the mean of the number of points obtained from the group.

- A 31.57
- B 32.57
- C 145.20
- D 149.80

- 9 Rajah 9 menunjukkan graf laju-masa bagi pergerakan suatu zarah dalam tempoh 32 saat.
Diagram 9 shows a speed-time graph for the movement of a particle for a period of 32 seconds.



Rajah /Diagram 9

Hitung jarak, dalam m, bagi tempoh 32 saat.
Calculate the distance, in m, for duration of 32 seconds.

- A 120
- B 400
- C 520
- D 640

- 10 Huda mempunyai wang sebanyak RM1 200. Dia menderma $\frac{3}{8}$ daripada wangnya kepada Yayasan Bakti dan dia juga membeli sebuah beg tangan berharga RM256.

Hitung baki wang Huda.

Huda has RM1 200. She donated $\frac{3}{8}$ of her money to Yayasan Bakti and she also bought a handbag worth RM256.

Calculate the remaining Huda money.

- A RM450.00
- B RM494.00
- C RM706.00
- D RM944.00

- 11 Pilih satu kesimpulan induktif yang kuat bagi jujukan nombor berikut 1, 7, 17, 31, ...

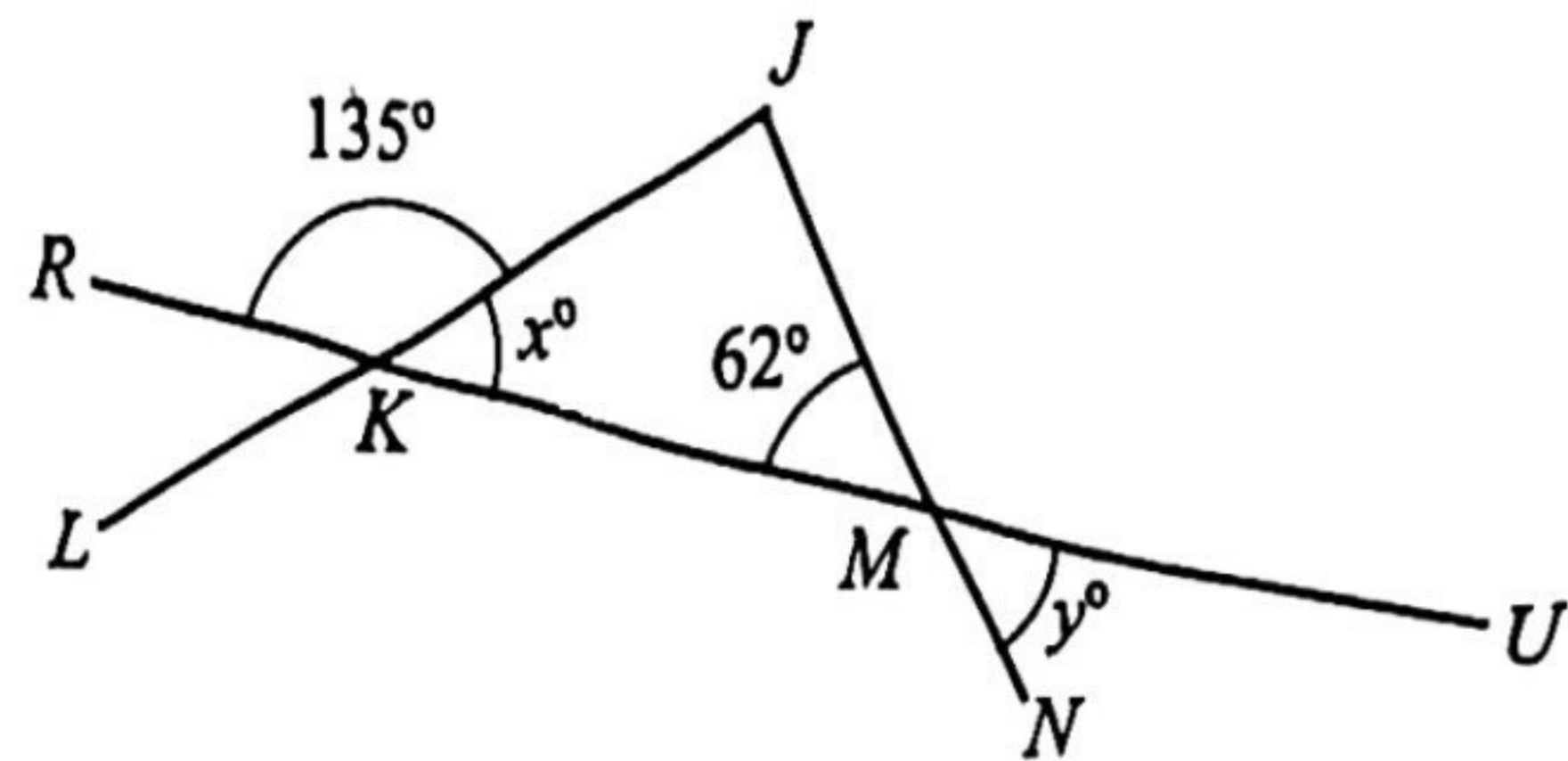
Choose a strong inductive conclusion for the following number sequence of 1, 7, 17, 31, ...

$$\begin{aligned} 1 &= 2(1)^2 - 1 \\ 7 &= 2(2)^2 - 1 \\ 17 &= 2(3)^2 - 1 \\ 31 &= 2(4)^2 - 1 \\ \dots &= \dots \end{aligned}$$

- A $2(1)^n - 1$, $n = 1, 2, 3, 4, \dots$
- B $2(1)^n - n$, $n = 1, 2, 3, 4, \dots$
- C $2(n)^2 - n$, $n = 1, 2, 3, 4, \dots$
- D $2(n)^2 - 1$, $n = 1, 2, 3, 4, \dots$

12 Rajah 12 menunjukkan suatu garis lurus JKL , $RKMU$ dan JMN .

Diagram 12 shows a straight line JKL , $RKMU$ and JMN .



Rajah /Diagram 12

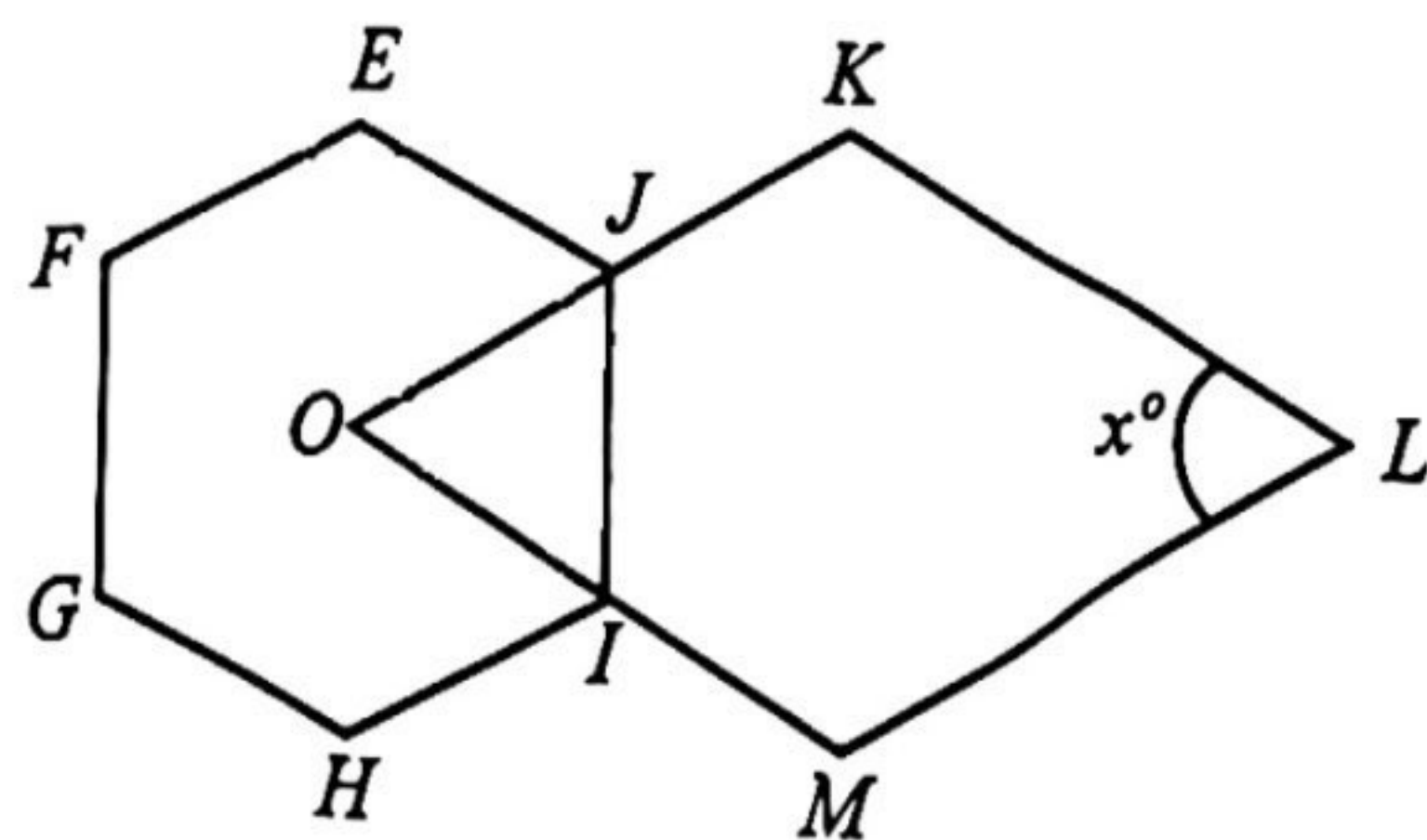
Hitung nilai bagi $x + y$.

Calculate the value of $x + y$.

- A 45°
- B 62°
- C 107°
- D 197°

13 Rajah 13 menunjukkan sebuah heksagon sekata $EFGHIJ$ dengan pusat O dan sebuah rombus $OKLM$.

Diagram 13 shows a regular hexagon $EFGHIJ$ with center O and a rhombus $OKLM$.



Rajah /Diagram 13

Hitung nilai bagi x° .

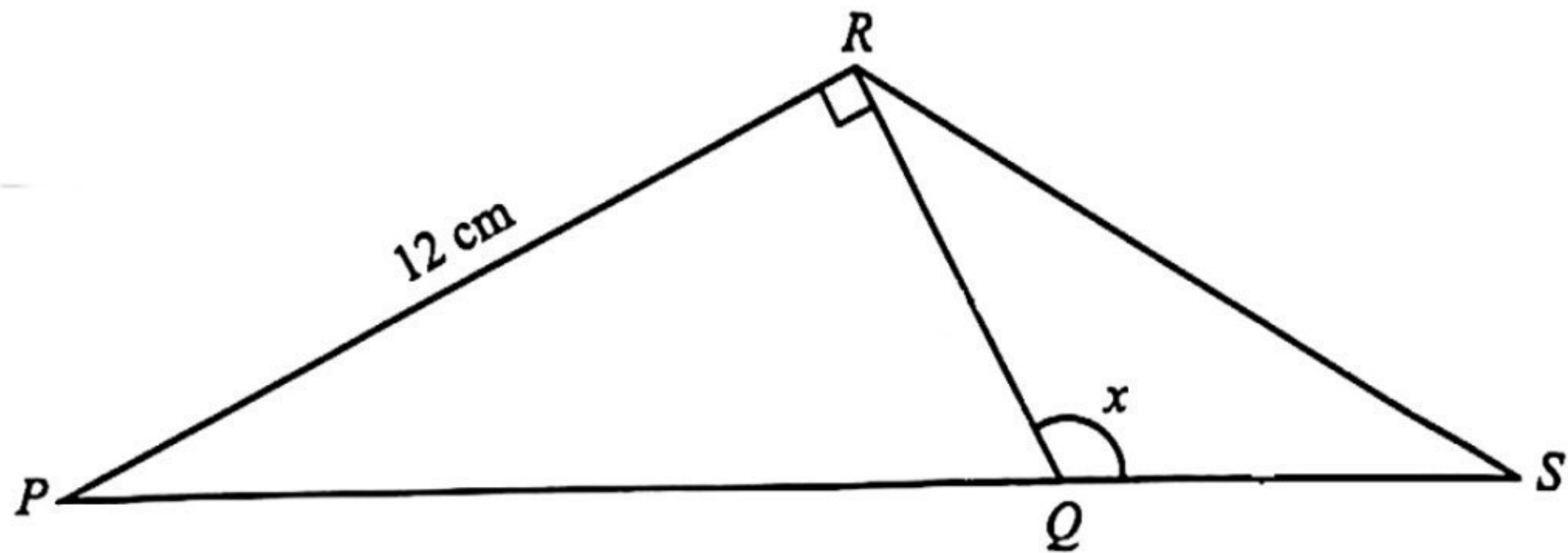
Calculate the value of x° .

- A 60
- B 72
- C 108
- D 120

- 14 Suatu zarah bergerak dengan laju $(x + 2) \text{ ms}^{-1}$ dalam masa x saat untuk jarak 120 meter. Hitung laju sebenar zarah tersebut.
A particle moves at a speed of $(x + 2) \text{ ms}^{-1}$ in x seconds for a distance 120 meters. Calculate the actual speed of the particle.

- A 8
- B 10
- C 12
- D 14

- 15 Rajah 15 menunjukkan segi tiga bersudut tegak PQR dan segi tiga sama kaki QRS .
Diagram 15 shows a right-angled triangle PQR and an isosceles triangle QRS .



Rajah /Diagram 15

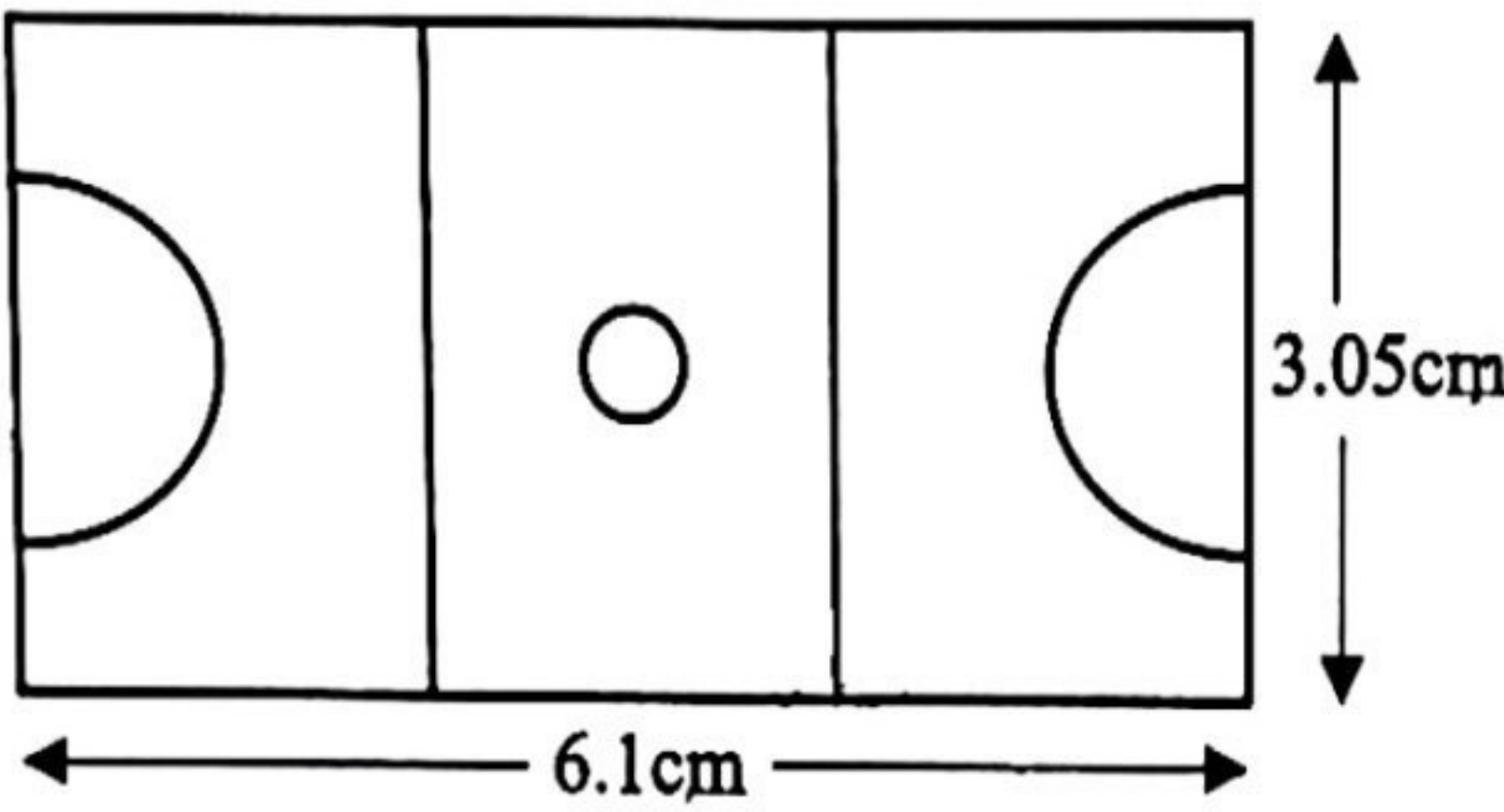
Diberi panjang QS ialah 5 cm, cari nilai bagi $\sin x$.
Given the length of QS is 5 cm, find the value of $\sin x$.

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

- 16 Diberi $\frac{2}{M} + \frac{R+1}{5} = 1$, ungkapkan M sebagai perkara rumus.
Given $\frac{2}{M} + \frac{R+1}{5} = 1$, express M as the subject of formula.

- A $M = \frac{10}{4+R}$
B $M = \frac{10}{4-R}$
C $M = 4+R$
D $M = 4-R$

- 17 Rajah 17 menunjukkan lukisan berskala bagi sebuah gelanggang bola jaring yang berbentuk segi empat tepat.
Diagram 17 shows a scaled drawing of a rectangular netball court.



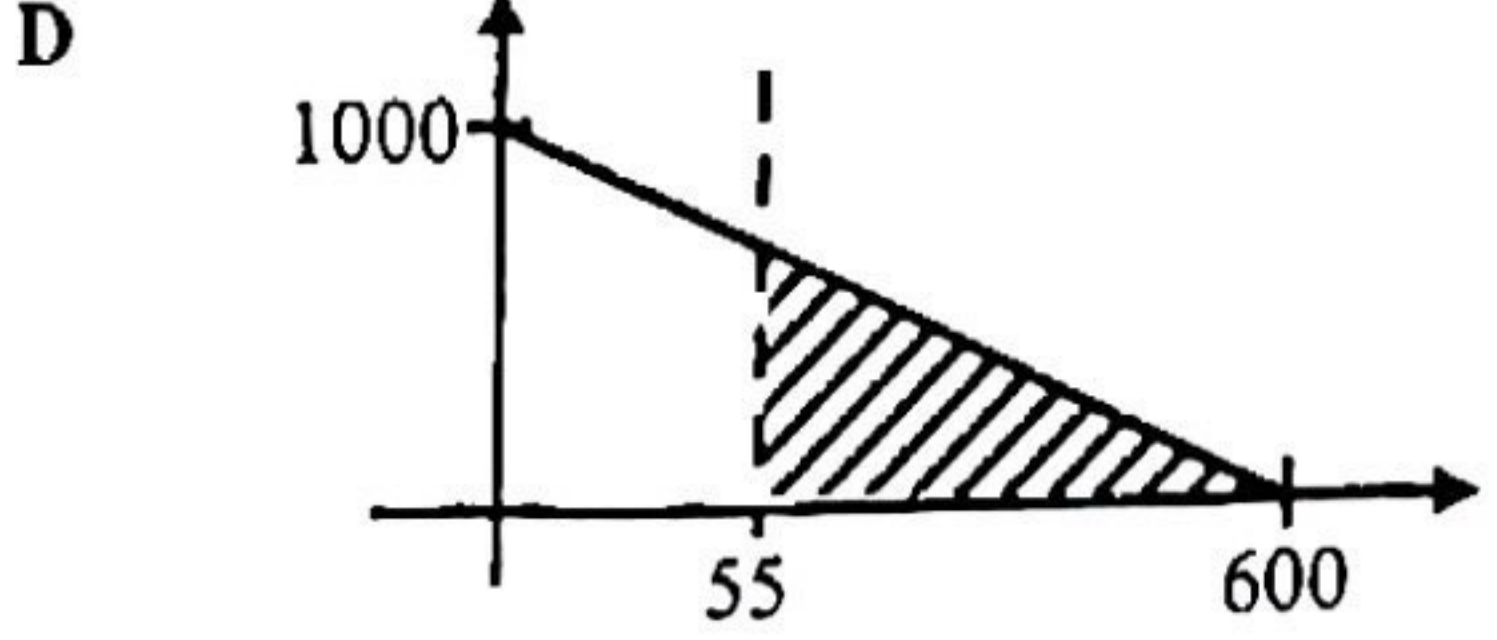
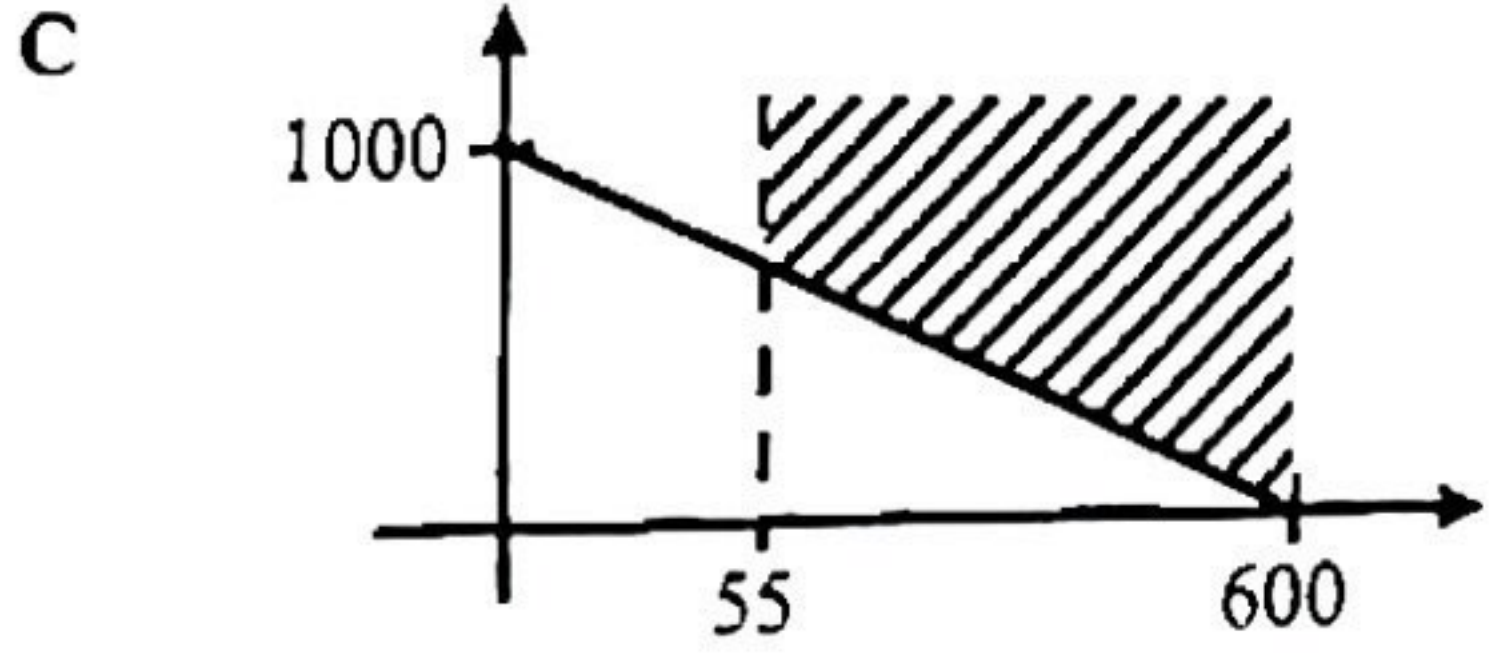
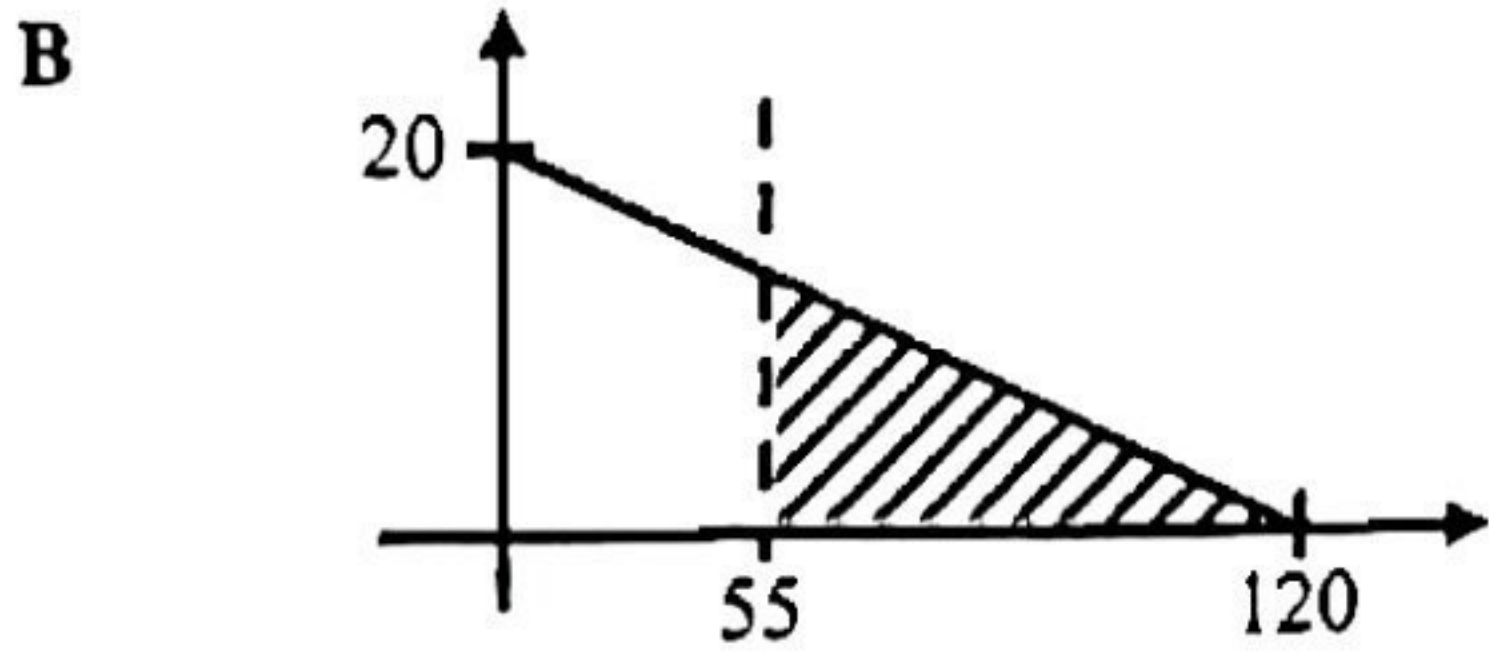
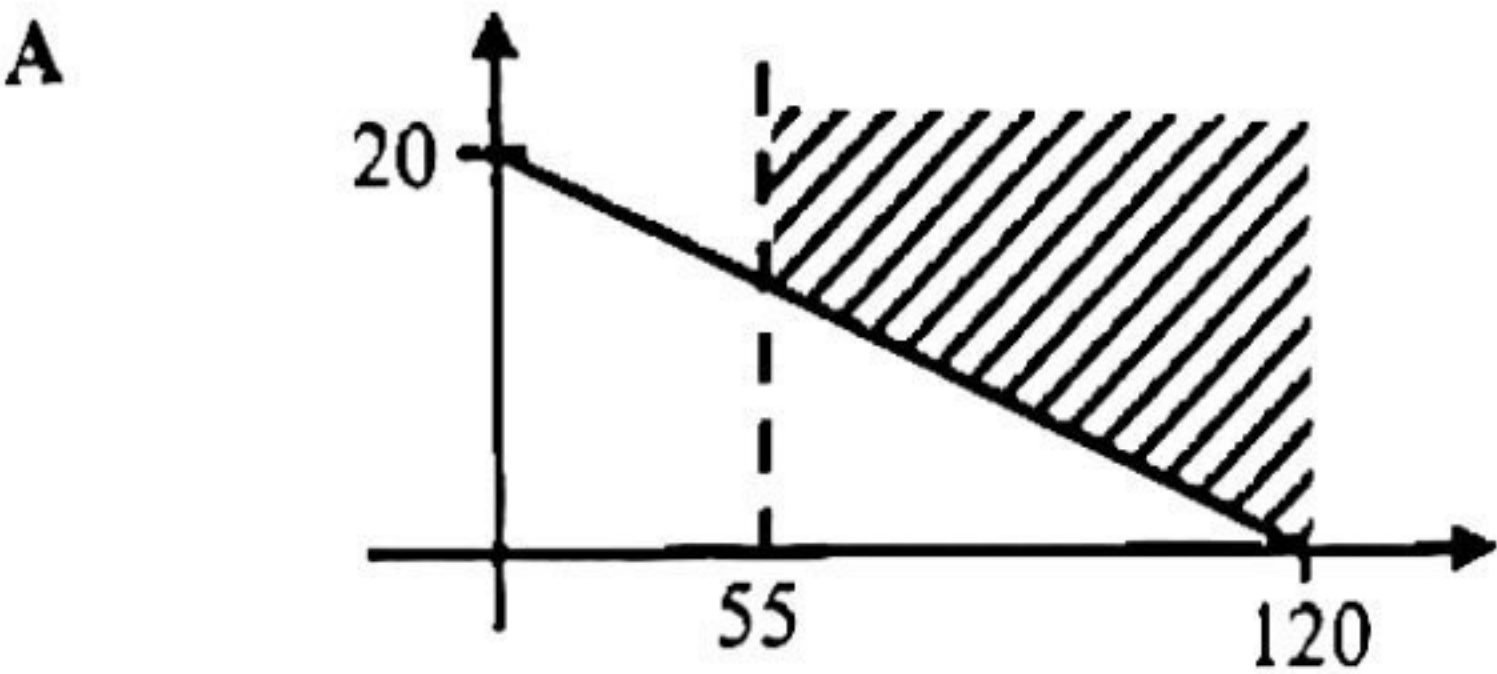
Rajah / Diagram 17

Diberi luas sebenar gelanggang itu ialah 465.125 m^2 , nyatakan skala yang digunakan dalam lukisan berskala itu.
Given the actual area of the court is 465.125 m^2 , state the scale used in the scale drawing.

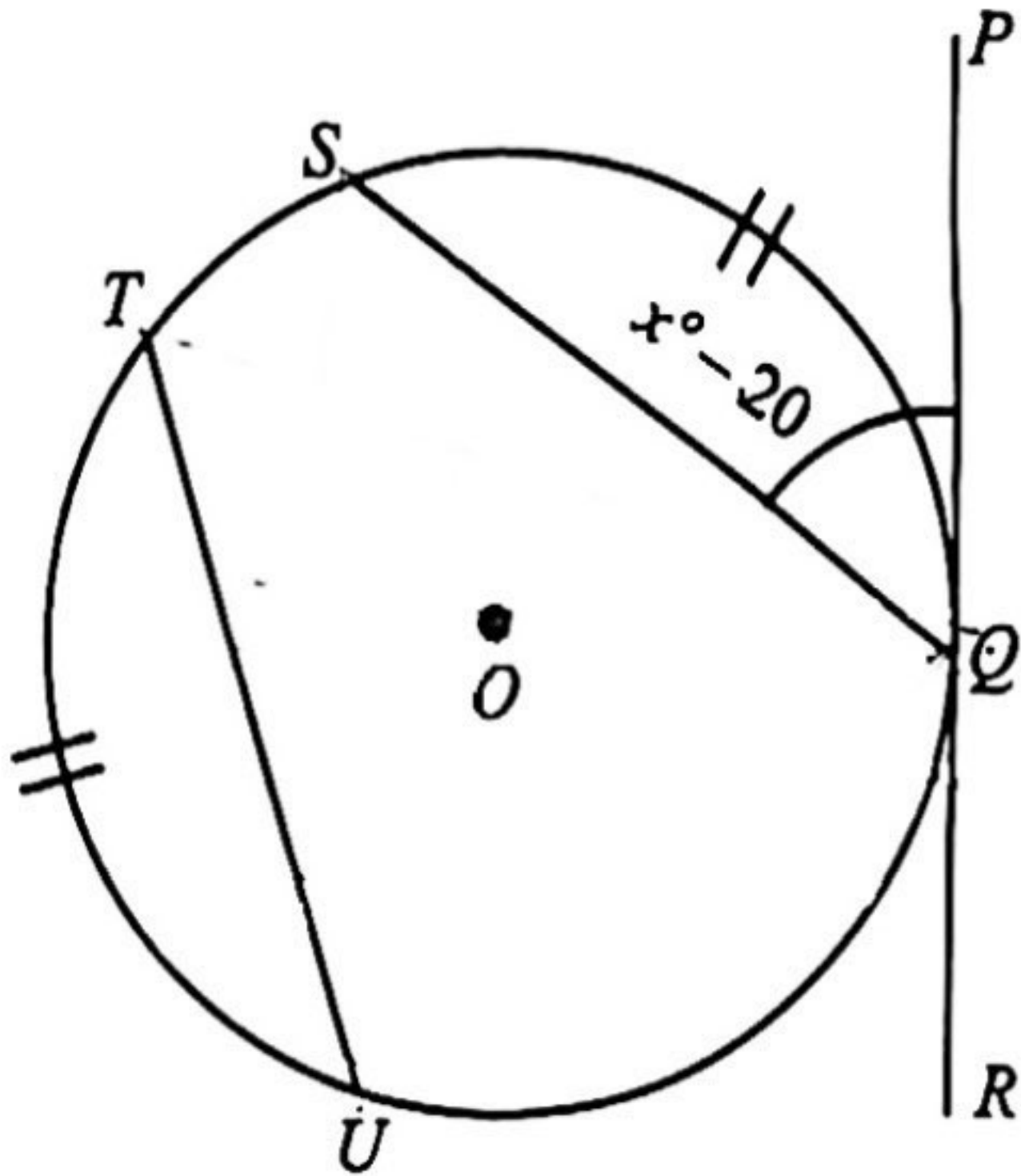
- A 1 : 5
B 1 : 40
C 1 : 400
D 1 : 500

- 18 Naim hendak menjual beberapa ekor kambing dan lembunya untuk mengumpul modal bagi membina kandang ternakan yang lebih moden. Harga bagi seekor kambing ialah RM1 000 dan harga bagi seekor lembu RM6 000. Naim perlu mengumpul sekurang-kurangnya RM120 000. Naim yakin beliau mampu untuk menjual lebih daripada 55 ekor kambingnya. Antara kawasan berlorek berikut, yang manakah mewakili penyelesaian yang memuaskan situasi Naim itu?

Naim wants to sell some of his goats and cattle to raise capital to build a more modern livestock enclosure. The price for a goat is RM1 000 and the price for a cow is RM6 000. Naim needs to collect at least RM120 000. Naim believes he can afford to sell more than 55 of his goats. Which of the following shaded areas represents a satisfactory solution to the Naim situation?



- 19 Rajah 19, PQR ialah tangen kepada bulatan $QSTU$ dengan pusat O di Q . $\angle SQP = x^\circ - 20$.
Diagram 19, PQR is the tangent to the $QSTU$ circle with the center O in Q . $\angle SQP = x^\circ - 20$.



Rajah /Diagram 19

Diberi panjang lengkok TU adalah sama dengan panjang lengkok SQ .
Nyatakan $\angle TUO$.

Given the length of the arc TU is equal to the length of the arc SQ .

State $\angle TUO$.

- A $70 - x$
 - B $90 - x$
 - C $110 - x$
 - D $160 - x$
- 20 Perimeter sebuah bilik makmal yang berbentuk segi empat tepat ialah 64 m. Jika panjang bilik makmal itu ialah 23 m, cari lebar bilik makmal itu.
- The perimeter of a rectangular laboratory room is 64 m. If the length of the laboratory room is 23 m, find the width of the laboratory room.*
- A 9
 - B 18
 - C 20.5
 - D 43.5



- 21 Jadual 21 menunjukkan bilangan denyutan nadi seminit, bagi 4 pesakit covid-19 yang direkodkan dalam selang masa setengah jam.

Table 21 shows the number of pulses per minute, for 4 covid-19 patients recorded in half-hour intervals.

Pesakit <i>Patient</i>	Bilangan denyutan seminit <i>Number of beats per minute</i>				
<i>P</i>	82	95	106	110	120
<i>Q</i>	80	110	106	107	110
<i>R</i>	95	96	101	110	111
<i>S</i>	100	100	97	110	106

Jadual / Table 21

Tentukan pesakit yang menunjukkan denyutan nadi yang paling konsisten.

Determine which patient shows the most consistent pulse.

- A *P*
- B *Q*
- C *R*
- D *S*

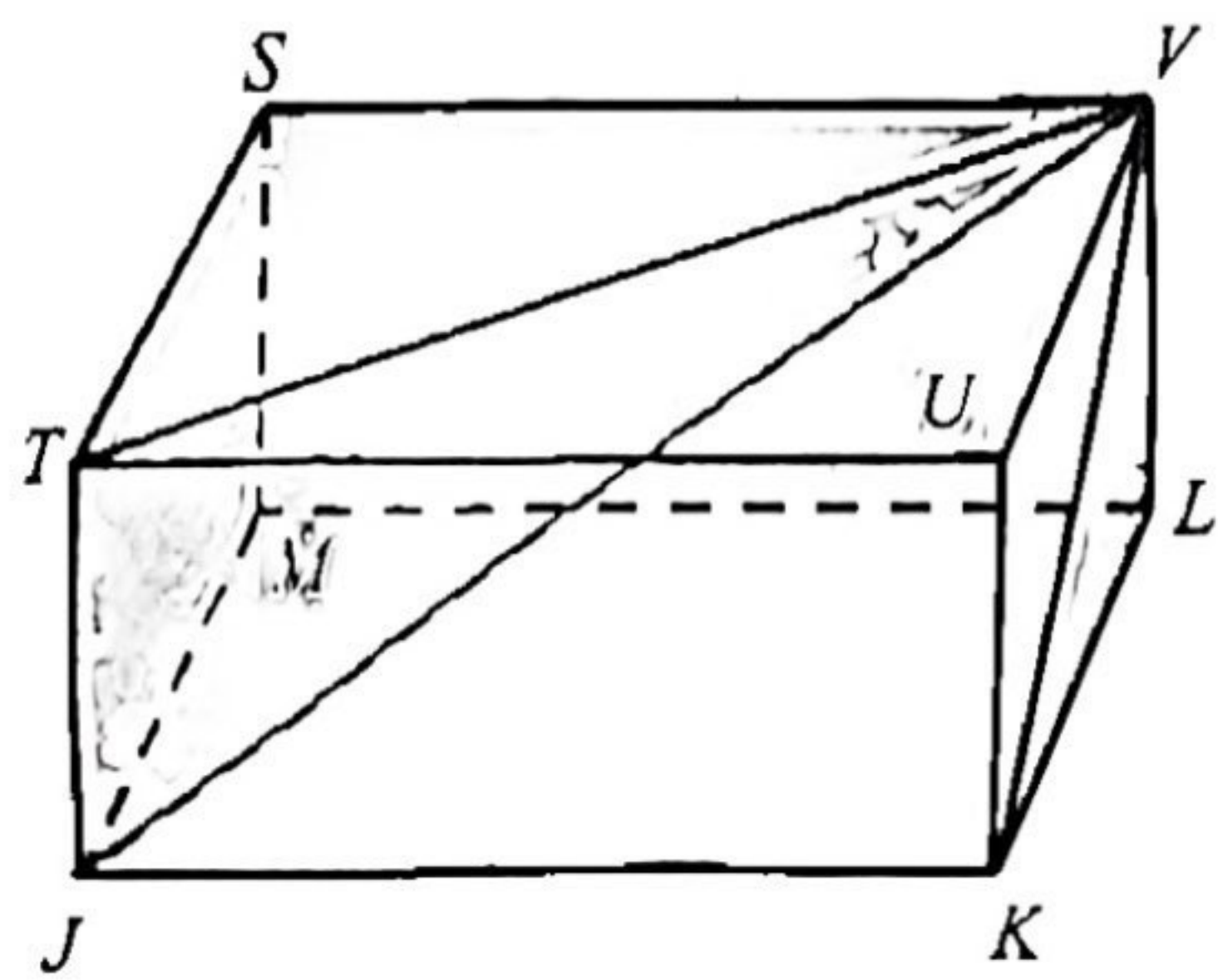
- 22 Suatu set data mengandungi 20 nombor. Min dan sisihan piawai bagi nombor-nombor ini ialah 9 dan 2 masing-masing. Hitung nilai Σx^2 .

A set of data contains 20 numbers. The mean and standard deviation of the numbers are 9 and 2 respectively. Calculate the value of Σx^2 .

- A 121
- B 161
- C 1 660
- D 1 700

- 23 Rajah 23 menunjukkan sebuah kuboid dengan sebahagian pepejal $VTJKU$ dan $VSMJT$ dikeluarkan dari kedua belah tepi kiri dan hadapannya. Diberi sudut VLM dan VLK adalah merupakan sudut tegak.

Diagram 23 shows a cuboid with a solid part of $VTJKU$ and $VSMJT$ removed from both its left and front edges. Given the angle VLM and VLK is an upright angle.



Rajah /Diagram 23

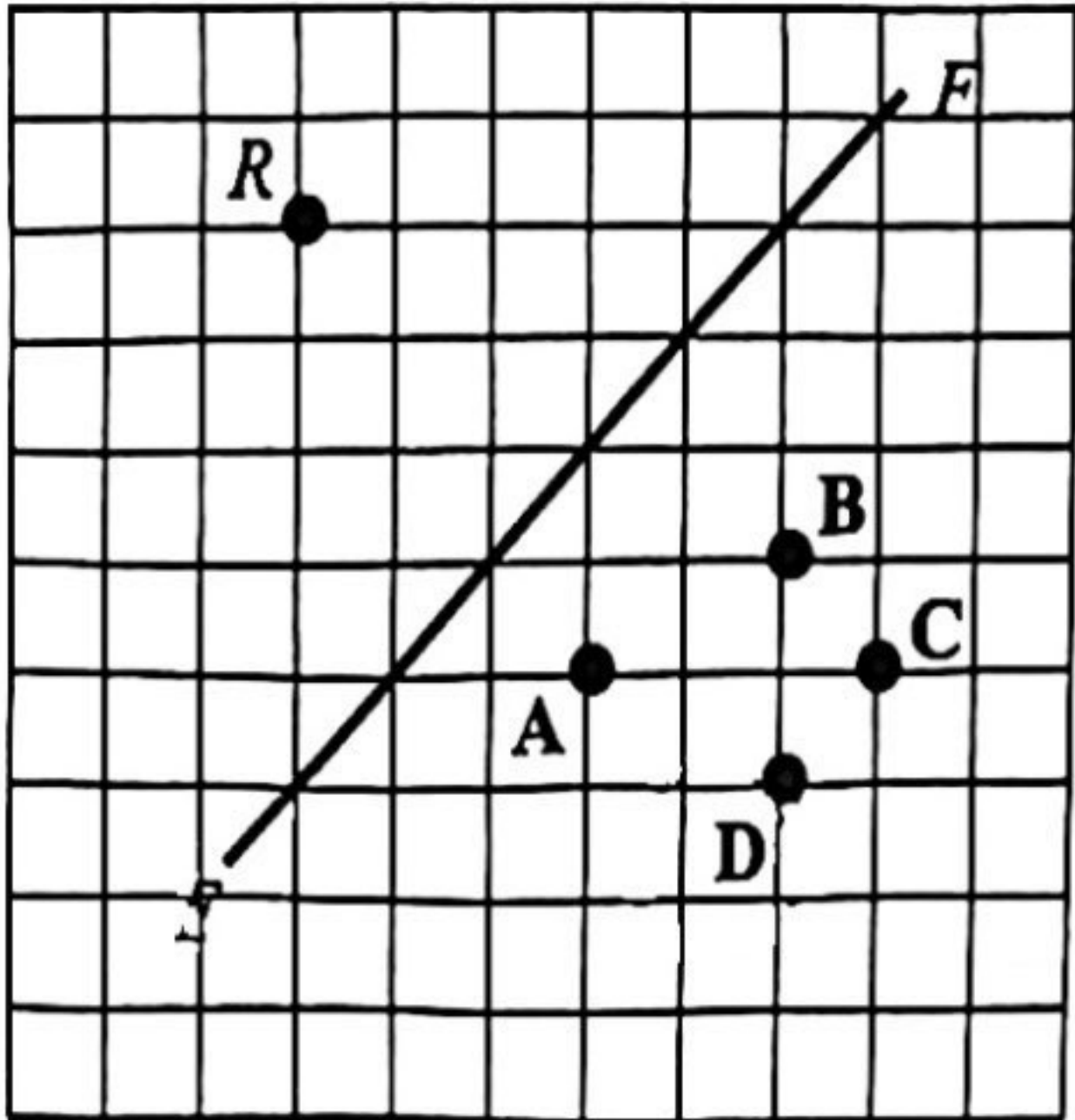
Tentukan pelan yang mungkin bagi pepejal yang tinggal.

Determine the possible plan for the remaining solid.

- A
- B
- C
- D

24 Rajah 24 menunjukkan suatu garis lurus EF .

Diagram 24 shows a straight line EF .



Rajah /Diagram 24

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

Which of points A, B, C or D, is the image of point R under the reflection on the EF line?

25 Rajah 25 menunjukkan beberapa keping kad dalam sebuah kotak.

Diagram 25 shows several cards in a box.



Rajah /Diagram 25

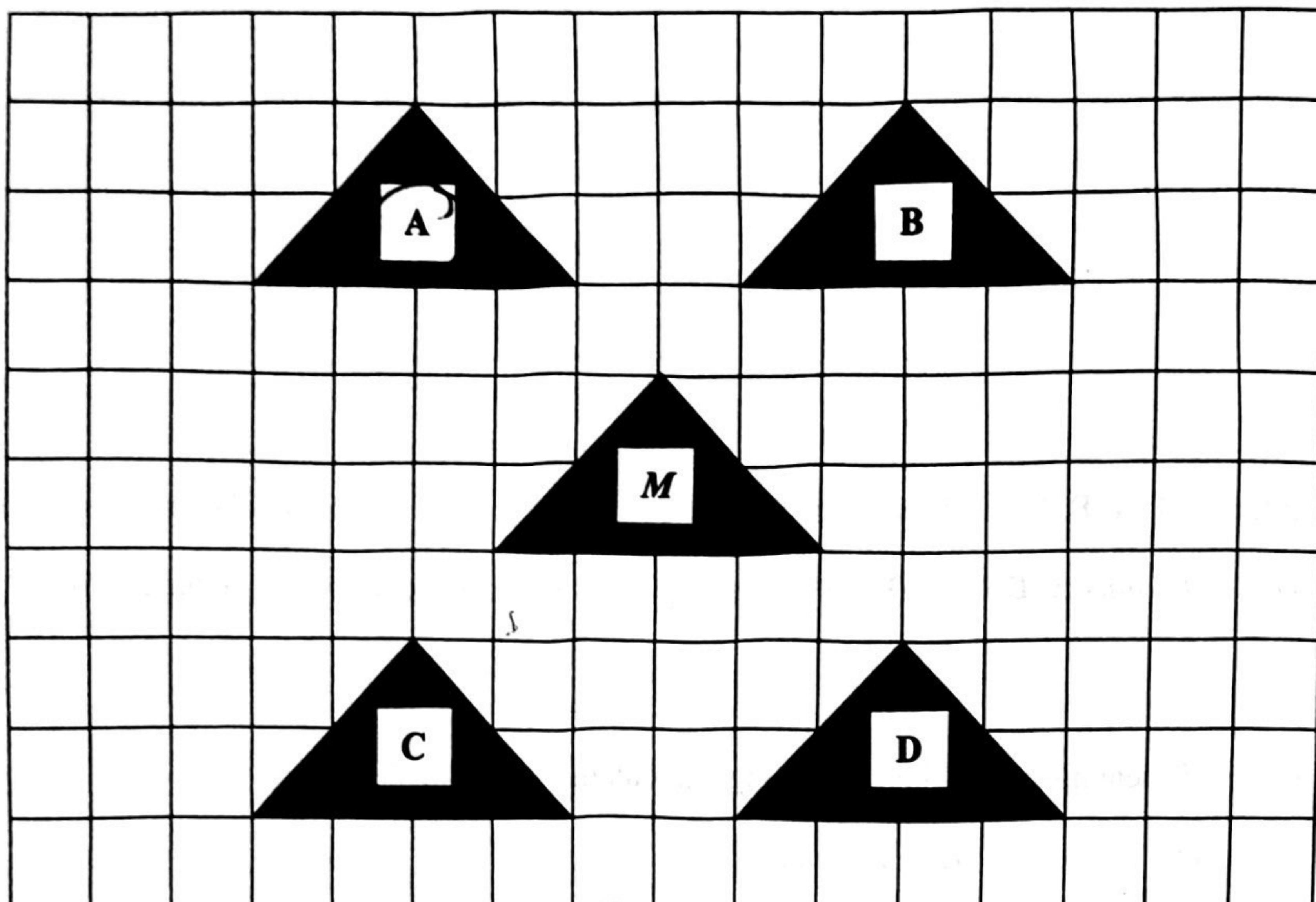
Sekeping kad dipilih secara rawak daripada kotak itu. M ialah peristiwa memilih nombor perdana. Hitung kebarangkalian peristiwa pelengkap bagi M .

A card is randomly selected from the box. M is an event of choosing a prime number. Calculate the probability of the complement an event for M .

- A $\frac{2}{9}$
- B $\frac{4}{9}$
- C $\frac{5}{9}$
- D $\frac{7}{9}$

- 26 Rajah 26 menunjukkan lima segi tiga, *M*, *A*, *B*, *C* dan *D*, yang dilukis pada grid segi empat sama.

Diagram 26 shows five triangles, M, A, B, C or D, drawn on a square grid.

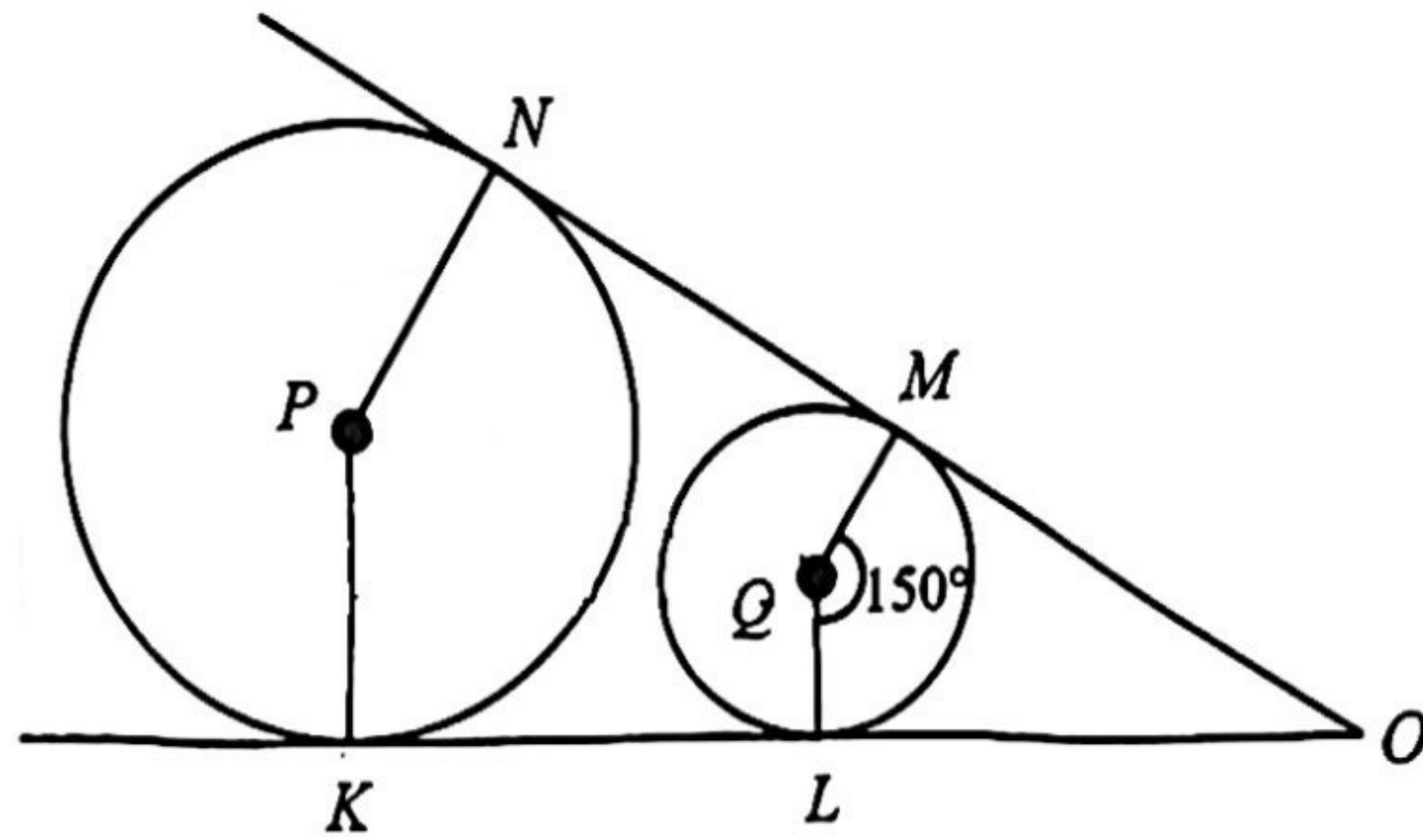


Rajah /Diagram 26

Di antara segitiga *A*, *B*, *C* dan *D*, yang manakah imej bagi segitiga *M* di bawah translasi $\begin{pmatrix} -3 \\ 3 \end{pmatrix}$.

Which of the polygons A, B, C or D, is the image of polygon M under a translation $\begin{pmatrix} -3 \\ 3 \end{pmatrix}$.

- 27 Rajah 27 menunjukkan dua bulatan yang berpusat di P dan Q , diberi masing-masing berjari 8 cm dan 5 cm. KLO dan NMO ialah tangen sepunya kepada kedua-dua bulatan tersebut. Diagram 27 shows two circles centered at P and Q , given radius of 8 cm and 5 cm respectively. KLO and NMO are common tangents to the two circles.



Rajah /Diagram 27

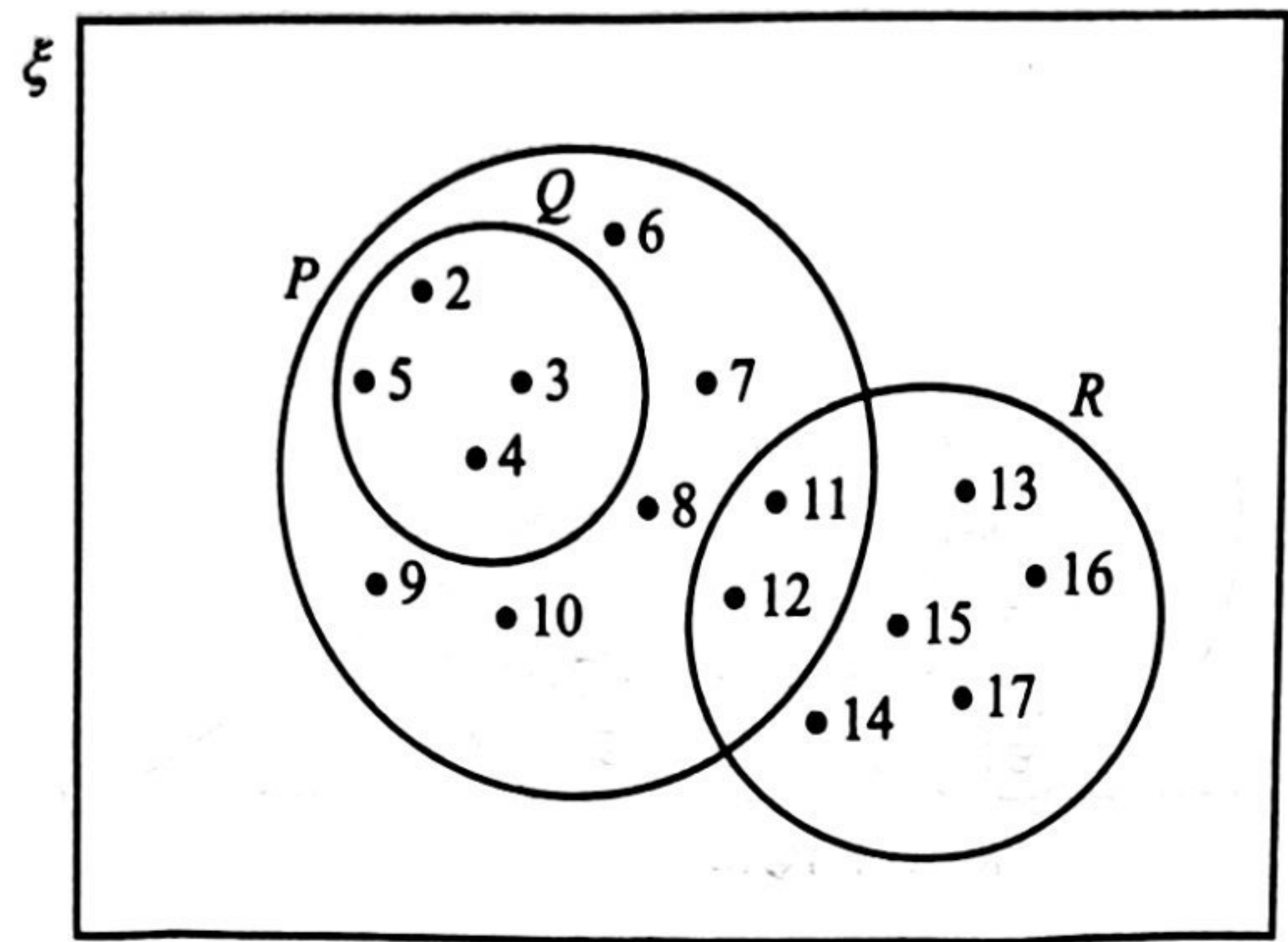
Hitung luas $KLMN$.

Calculate the area of $KLMN$.

- A 84.5
- B 119.4
- C 145.6
- D 150.7

28 Rajah 28 ialah gambar rajah Venn yang mewakili set semesta ξ , set P , set Q dan set R .

Diagram 28 is a Venn diagram represent the universal set ξ , set P , set Q and set R .



Rajah /Diagram 28

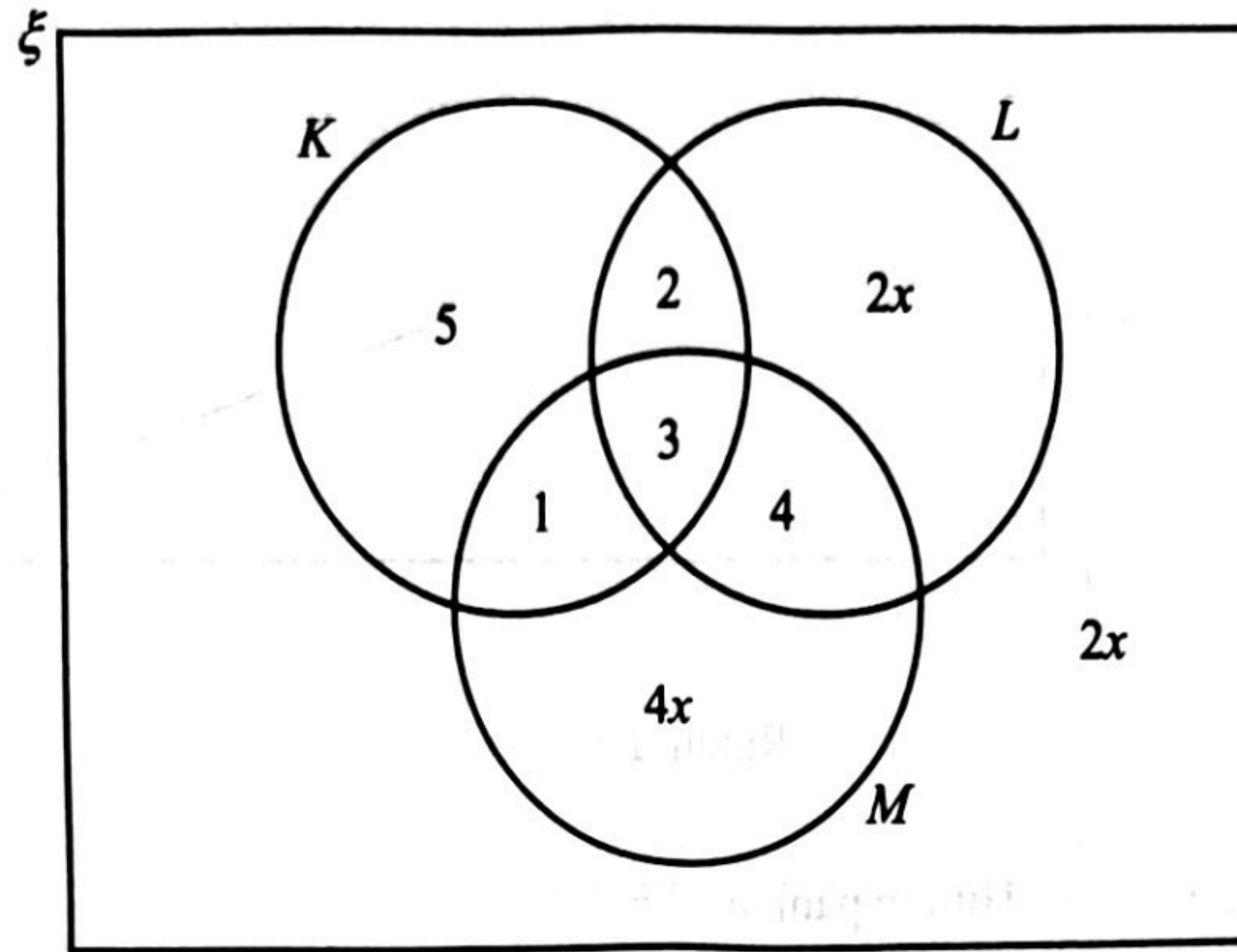
Antara berikut yang manakah merupakan unsur bagi set P' ?

Which of the following is an element of the set P' ?

- A 6, 7, 8, 9, 10, 11, 12
- B 13, 14, 15, 16, 17
- C 6, 7, 8, 9, 10
- D 2, 3, 4, 5

- 29 Rajah 29 menunjukkan gambar rajah Venn yang mewakili bilangan unsur yang terdapat di dalam set semesta ξ , set K , set L dan set M .

Diagram 29 shows a Venn diagram represent the number of elements in the universal set ξ , set K , set L and set M .



Rajah /Diagram 29

Diberi $n(M) = n(K \cup L)'$, cari $n(\xi)$.

Given $n(M) = n(K \cup L)'$, find $n(\xi)$.

A 38

B 39

C 47

D 48

- 30 Aaron memiliki sebuah rumah di Alor Setar. Nilai tahunannya ialah RM6 250. Setiap setengah tahun, dia membayar RM312.50 cukai pintu kepada Majlis Bandaraya Alor Setar. Hitung kadar cukai pintu yang dikenakan?

Aaron owns a house in Alor Setar. Its annual value is RM6 250. Each half year, Aaron pays RM312.50 to Majlis Bandaraya Alor Setar for the property assessment tax. Calculate the applicable property assessment tax rate?

A 3

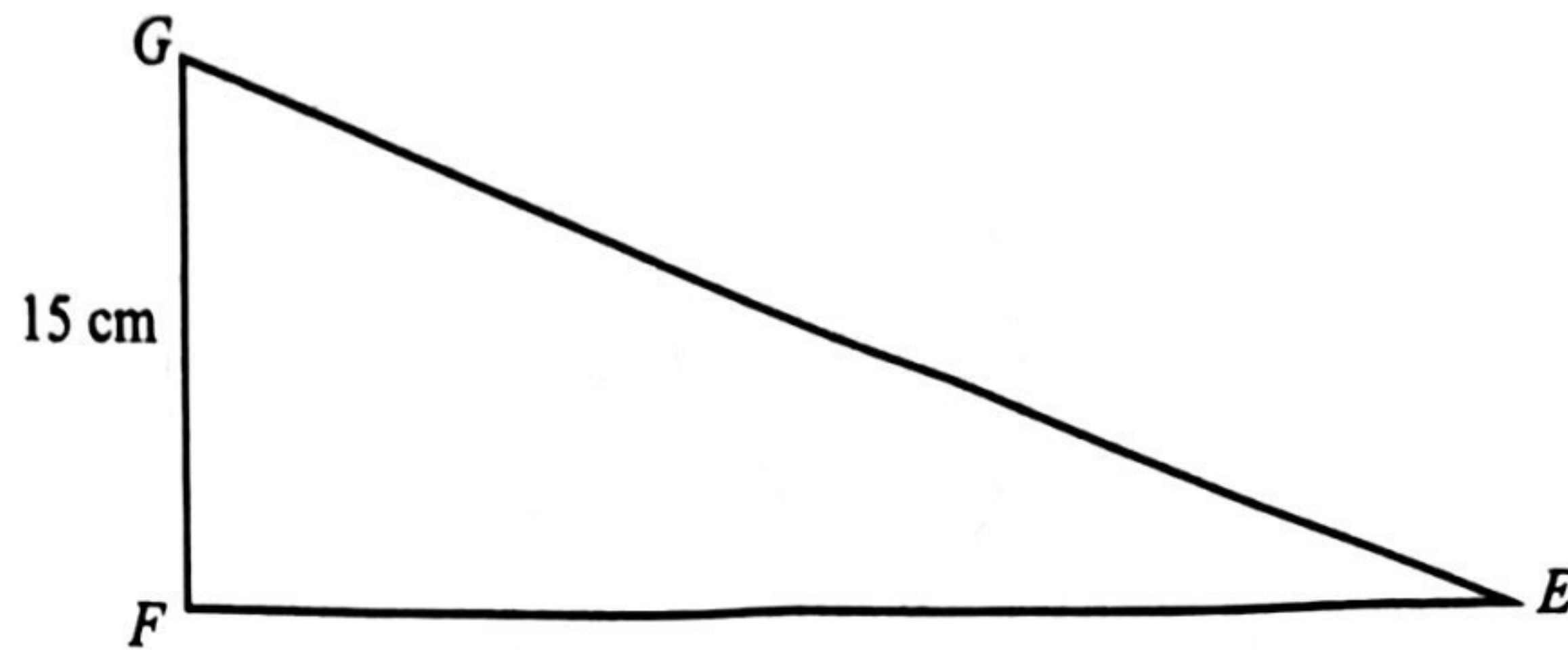
B 5

C 6

D 10

- 31 Rajah 31 menunjukkan sebuah segi tiga bersudut tegak EFG .

Diagram 31 shows a right-angled triangle EFG .



Rajah /Diagram 31

Diberi $\sin \angle GEF = \frac{5}{13}$. Hitung panjang EF dalam cm.

Given $\sin \angle GEF = \frac{5}{13}$. Calculate the length of EF in cm.

- A 39
B 36
C 26
D 24
- 32 Pada 1 Januari 2023, Encik Juraidi melabur dalam Amanah Saham Bumiputera (ASB) sebanyak 20 000 unit bernilai RM1 seunit. Bagi tahun kewangan berakhir 31 Disember 2023, ASB membayar dividen sebanyak 5.25%. Berapakah dividen yang diterima oleh Encik Juraidi pada tahun tersebut?
- On 1 January 2023, Encik Juraidi invested 20 000 units of Amanah Saham Bumiputera (ASB) shares valued at RM1 per unit. For the financial year ending 31 Disember 2023, ASB paid a dividend of 5.25%. How much is the dividend received by Encik Juraidi for that year?*
- A RM3 809.52
B RM1 050.00
C RM1 000.52
D RM525.00

- 33 Puan Saffiya bekerja sebagai seorang guru di sebuah sekolah dengan gaji bersih RM8 500. Dia juga menerima RM550 setiap bulan hasil sewa rumahnya. Perbelanjaan tetap bulanan dan perbelanjaan tidak tetap bulannya masing-masing ialah RM3 050 dan RM2 250. Jika Puan Saffiya menetapkan 10% daripada gajinya sebagai simpanan tetap bulanan, hitung aliran tunai bulannya.

Puan Saffiya works as a teacher in a school with a monthly salary of RM8 500. She also receives RM550 monthly from her house rental. Her monthly fixed expenses and monthly variable expenses are RM3 050 and RM2 250 respectively. If Puan Saffiya sets aside 10% of her salary as fixed monthly savings, calculate her monthly cash flow.

- A RM1 800
- B RM2 900
- C RM3 750
- D RM4 600

- 34 Terdapat 40 buah buku Matematik dan beberapa buah buku Sains di sebuah rak buku. Kebarangkalian bahawa sebuah buku Sains dipilih secara rawak daripada rak itu ialah $\frac{3}{8}$. Berapakah buku Sains yang ada di rak itu?

There are 40 Mathematics book and a number of Science books on a book rack. The probability a Science book is chosen at random from the rack is $\frac{3}{8}$. How many Science books are there on the rack?

- A 65
- B 55
- C 24
- D 15

- 35 Jadual 35 menunjukkan bilangan ahli Persatuan STEM di SMK Taman Avenue.
- Table 35 shows the number of the STEM society members in SMK Taman Avenue.*

Sesi Session	Bilangan ahli Number of members	
	Perempuan Female	Lelaki Male
Pagi Morning	146	124
Petang Afternoon	82	96

Jadual / Table 35

Dua orang ahli dipilih secara rawak daripada ahli lelaki, hitung kebarangkalian kedua-dua orang ahli dipilih ialah murid sesi pagi.

Two members are selected randomly from the male members, calculate the probability that both members chosen are from the morning session.

- A 0.317
- B 0.267
- C 0.211
- D 0.210

36 Puan Aziah berpendapatan RM45 000 pada tahun 2022. Jadual 36 menunjukkan maklumat yang berkaitan pengiraan cukai pendapatan Puan Aziah.

Puan Aziah earned RM45 000 in 2022. Table 36 shows information that relate to the calculation of Puan Aziah's income tax.

Perkara <i>Item</i>	Jumlah amaun (RM) <i>Total amaun (RM)</i>
Individu <i>Individual</i>	9 000
Gaya hidup (had RM2 500) <i>Lifesyle (limited RM2 500)</i>	2 800
Zakat <i>Zakat</i>	1 200

Jadual /Table 36

Antara berikut, yang manakah pengiraan pendapatan bercukai yang betul?

Which of the following is the correct calculation step of chargeable income?

- A RM45 000 – RM11 500 – RM1 200
- B RM45 000 – RM11 800 – RM1 200
- C RM45 000 – RM11 800
- D RM45 000 – RM11 500

- 37 Jadual 37 menunjukkan Encik Yab menginsuranskan kedainya dengan insurans kebakaran.
Table 37 shows Encik Yab insured his shop with fire insurance.

Nilai boleh insurans kedai <i>Shop insurable value</i>	RM650 000
Ko-insurans <i>Co-Insurance</i>	85% daripada nilai boleh insurans kedai <i>85% of shop insurable value</i>
Deduktibel <i>Deductible</i>	RM6 000

Jadual /Table 37

Dia menginsuranskan kedainya dengan jumlah RM450 000. Dalam satu kejadian kebakaran, kedainya telah mengalami kerugian menyeluruh. Hitung bayaran pampasan yang diterima.
He insured his house at a sum of RM450 000. In a fire incident, his shop suffered a total loss. Calculate the amount compensation he will receive.

- A RM382 500
B RM444 000
C RM450 000
D RM546 500
- 38 Encik Mahfiz membeli polisi insurans perubatan dengan fasal penyertaan peratusan ko-insurans 80/20 dan peruntukan deduktibel sebanyak RM2 000. Dia telah menjalani suatu pembedahan di hospital dan kos rawatannya berjumlah RM35 000.
Hitung jumlah kos yang perlu ditanggung oleh Encik Mahfiz.
Encik Mahfiz bought a medical insurance policy with 80/20 co-insurance percentage participation clause and a deductible provision of RM2 000. He underwent a surgery at a hospital and his treatment cost was RM35 000. Calculate the total cost borne by Encik Mahfiz.
- A RM6 600
B RM7 000
C RM8 600
D RM9 000

- 39 Tulis persamaan linear serentak berikut dalam bentuk matriks.

Write the following linear equation in the form of matrix.

$$\begin{aligned}x &= 2y \\ y &= 2x - 6\end{aligned}$$

A $\begin{pmatrix} 1 & -2 \\ 2 & -1 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 0 \\ 6 \end{pmatrix}$

B $\begin{pmatrix} 1 & -2 \\ 2 & -1 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 0 \\ -6 \end{pmatrix}$

C $\begin{pmatrix} 1 & 2 \\ 1 & 2 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 0 \\ 6 \end{pmatrix}$

D $\begin{pmatrix} 1 & 2 \\ 1 & 2 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 0 \\ -6 \end{pmatrix}$

- 40 Diberi $\begin{pmatrix} 6 & -3 \\ 5 & 4 \end{pmatrix} \begin{pmatrix} 2 \\ 1 \end{pmatrix} - \begin{pmatrix} x \\ 8 \end{pmatrix} = \begin{pmatrix} 4 \\ 6 \end{pmatrix}$, cari nilai x .

Given $\begin{pmatrix} 6 & -3 \\ 5 & 4 \end{pmatrix} \begin{pmatrix} 2 \\ 1 \end{pmatrix} - \begin{pmatrix} x \\ 8 \end{pmatrix} = \begin{pmatrix} 4 \\ 6 \end{pmatrix}$, find the value of x .

A 0

B 2

C 5

D 6

MODUL TAMAT