

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

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 Premium = $\frac{\text{Nilai muka polisi}}{\text{RMx}} \times (\text{Kadar premium per RMx})$
 $Premium = \frac{\text{Face value of policy}}{\text{RMx}} \times (\text{Premium rate per RMx})$

11 Jumlah insurans yang harus dibeli = $\left(\frac{\text{Peratusan}}{\text{ko insurans}}\right) \times \left(\frac{\text{Nilai boleh}}{\text{insurans harta}}\right)$
 $Amount of required insurance = \left(\frac{\text{Percentage of}}{\text{co-insurance}}\right) \times \left(\frac{\text{Insurable value}}{\text{of property}}\right)$

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

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

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 lelayang $= \frac{1}{2} \times \text{hasil darab panjang dua pepenjuru}$
Area of kite $= \frac{1}{2} \times \text{product of the length of two diagonals}$
- 8 Luas trapezium $= \frac{1}{2} \times \text{hasil tambah dua sisi selari} \times \text{tinggi}$
Area of trapezium $= \frac{1}{2} \times \text{sum of two parallel sides} \times \text{height}$
- 9 Luas permukaan silinder $= 2\pi r^2 + 2\pi r h$
Surface area of cylinder $= 2\pi r^2 + 2\pi r h$
- 10 Luas permukaan kon $= \pi r^2 + \pi r s$
Surface area of cone $= \pi r^2 + \pi r s$
- 11 Luas permukaan sfera $= 4\pi r^2$
Surface area of sphere $= 4\pi r^2$
- 12 Isi padu prisma $= \text{luas keratan rentas} \times \text{tinggi}$
Volume of prism $= \text{area of cross section} \times \text{height}$
- 13 Isi padu silinder $= \pi r^2 t$
Volume of cylinder $= \pi r^2 h$

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

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

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

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

16 Isi padu piramid = $\frac{1}{3} \times \text{luas tapak} \times \text{tinggi}$

$$\text{Volume of pyramid} = \frac{1}{3} \times \text{base area} \times \text{height}$$

17 Faktor skala, $k = \frac{PA'}{PA}$

$$\text{Scale factor, } k = \frac{PA'}{PA}$$

18 Luas imej = $k^2 \times \text{luas objek}$

$$\text{Area of image} = k^2 \times \text{area of object}$$

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, $\sigma^2 = \frac{\sum(x-\bar{x})^2}{N} = \frac{\sum x^2}{N} - \bar{x}^2$

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

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

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

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

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

Jawab **semua** soalan.

- 1** Antara berikut yang manakah adalah sama nilai dengan 32_{10} ?
Which of the following is the same value as 32_{10} ?

- | | |
|-----------------|--------------------|
| A 36_9 | C 2000_4 |
| B 40_8 | D 10000_2 |

2 $1023_4 + 203_4 - 102_4 =$

- | | |
|-------------------|-------------------|
| A 1013_4 | C 1130_4 |
| B 1123_4 | D 1301_4 |

- 3** Antara berikut yang manakah matriks sama bagi $\begin{pmatrix} 11 \\ -6.5 \end{pmatrix}$.
Which of the following is the equal matrix for $\begin{pmatrix} 11 \\ -6.5 \end{pmatrix}$.

- | | |
|---|---|
| A $(11 \quad -6.5)$ | C $\left(11 \quad -\frac{13}{2}\right)$ |
| B $\begin{pmatrix} -11 \\ 6.5 \end{pmatrix}$ | D $\begin{pmatrix} 11 \\ \frac{13}{2} \end{pmatrix}$ |

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

- | | |
|--|--|
| A $\begin{pmatrix} 5 & 6 \\ 5 & -3 \end{pmatrix}$ | C $\begin{pmatrix} -5 & -6 \\ -5 & 3 \end{pmatrix}$ |
| B $\begin{pmatrix} 5 & 6 \\ -5 & 3 \end{pmatrix}$ | D $\begin{pmatrix} -5 & 6 \\ 5 & -3 \end{pmatrix}$ |

5 Permudahkan :
Simplify :
$$\frac{9x^2y^6 \times 3x^2}{27y^2}$$

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

- 6** Diberi $5r^2 = 3t + 4s$. Ungkapkan t dalam sebutan r dan s .
Given $5r^2 = 3t + 4s$. Express t in term of r and s .

A $t = \frac{5r^2 + 4s}{3}$

C $t = \frac{5r^2}{3} - 4s$

B $t = \frac{5r^2 - 4s}{3}$

D $t = \frac{4s}{3} - 5r^2$

- 7** Pernyataan di bawah adalah songsangan bagi suatu implikasi.
The statement below is the inverse of an implication.

Jika $k + 4 \neq 9$, maka $k \neq 5$
If $k + 4 \neq 9$, then $k \neq 5$

Antara berikut yang manakah adalah kontrapositif bagi songsangan tersebut?
Which of the following is the contrapositive of the inverse?

A Jika $k = 5$, maka $k + 4 = 9$
If $k = 5$, then $k + 4 = 9$

B Jika $k + 4 = 5$, maka $k = 9$
If $k + 4 = 5$, then $k = 9$

C Jika $k + 4 = 9$, maka $k = 5$
If $k + 4 = 9$, then $k = 5$

D Jika $k \neq 5$, maka $k + 4 \neq 9$
If $k \neq 5$, then $k + 4 \neq 9$

- 8** Diberi bahawa s berubah secara langsung dengan punca kuasa dua t dan secara songsang dengan u . Jika $s = 8$ apabila $t = 36$ dan $u = 3$, ungkapkan s dalam sebutan t dan u .

Given that s varies directly with the square root of t and inversely with u . If $s = 8$ when $t = 36$ and $u = 3$, express s in terms of t and u .

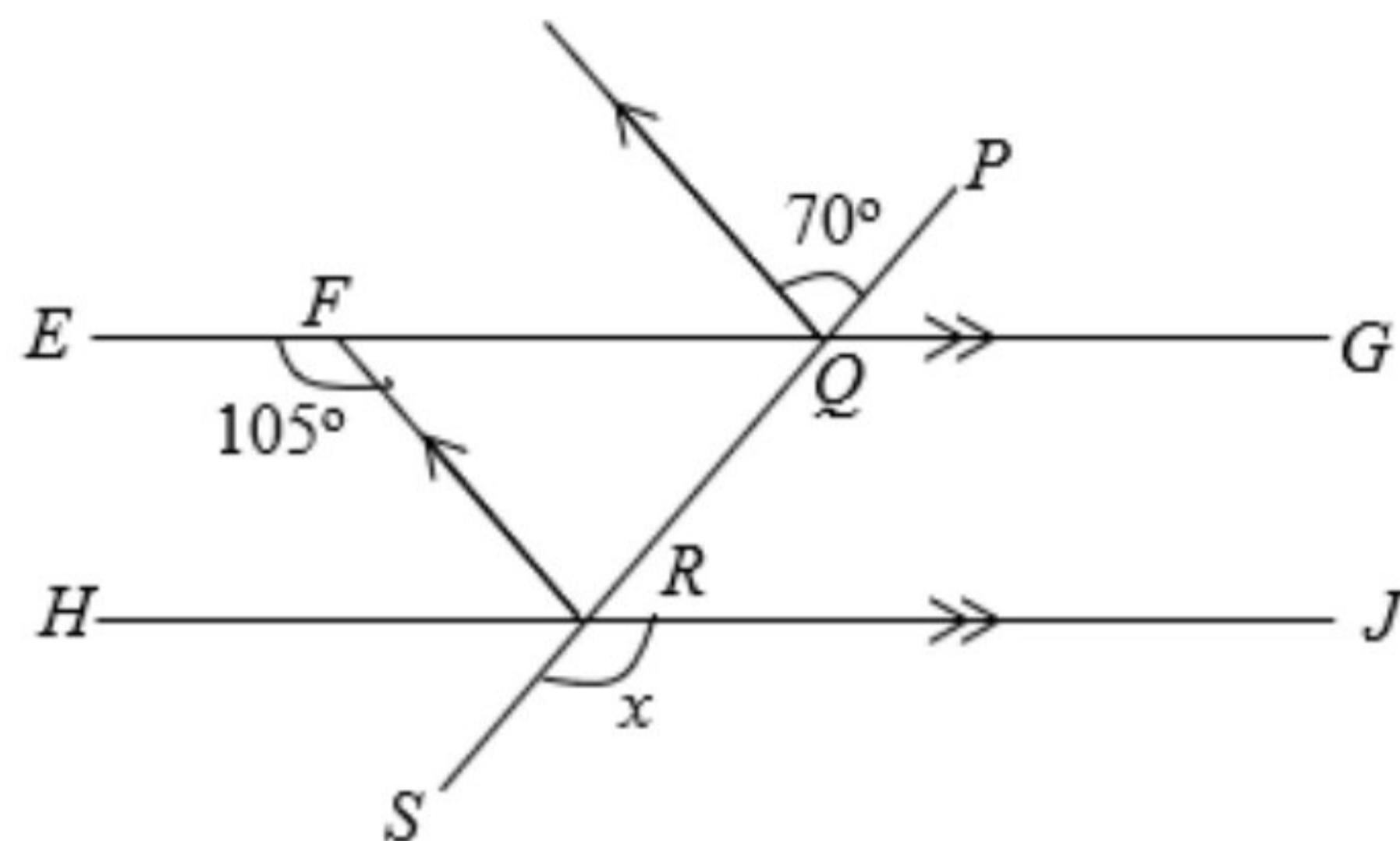
A $s = 4\sqrt{tu}$

C $s = 6\sqrt{tu}$

B $s = \frac{2\sqrt{t}}{u}$

D $s = \frac{4\sqrt{t}}{u}$

- 9** Dalam Rajah 1, $PQRS$, $EFQG$ dan HRJ ialah garis lurus.
In Diagram 1, $PQRS$, $EFQG$ and HRJ are straight lines.



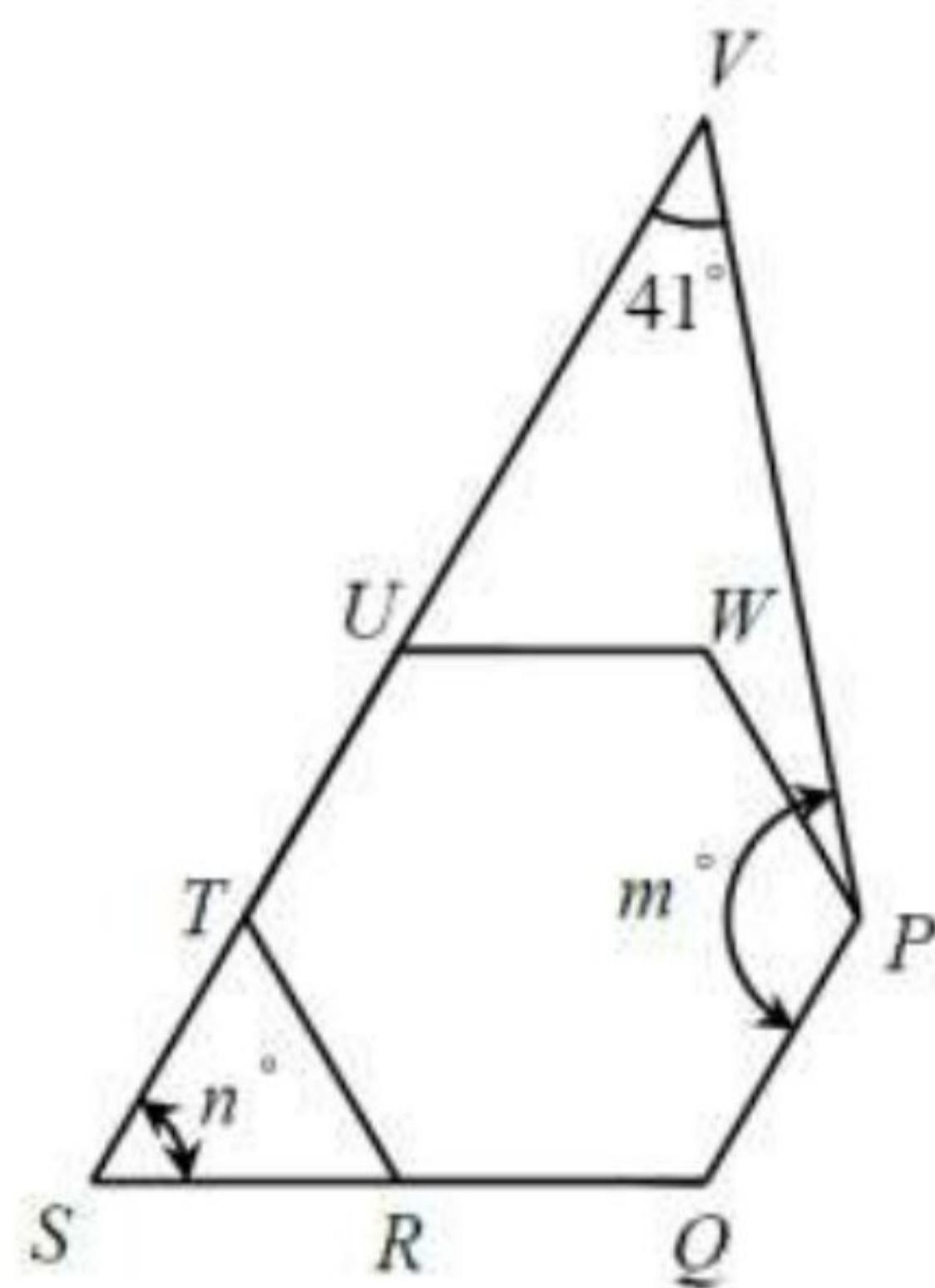
Rajah 1 / Diagram 1

Cari nilai x .*Find the value of x .*

- A** 35
B 75

- C** 125
D 145

- 10** Dalam Rajah 2, $PQRTUW$ ialah heksagon sekata. $STUV$ dan SRQ ialah garis lurus.
In Diagram 2, $PQRTUW$ is a regular hexagon. $STUV$ and SRQ are straight lines.



Rajah 2 / Diagram 2

Hitung nilai $m + n$.*Calculate the value of $m + n$.*

- A** 140
B 169

- C** 199
D 219

11 Permudahkan :

Simplify :

$$\frac{p^4 \times (16p^8)^{\frac{1}{4}}}{q^{-3}}$$

A $2p^3q^{-3}$

B $2p^6q^3$

C $16p^3q^{-3}$

D $16p^6q^3$

12 Sebuah kotak mengandungi tiga batang pen biru, lima batang pen merah dan sebatang pen hitam. Dua batang pen dipilih dari kotak secara rawak satu per satu tanpa pemulangan. Hitung kebarangkalian bahawa kedua-dua batang pen yang dipilih adalah berwarna sama.

A box contains three blue pens, five red pens and one black pen. Two pens are selected from the box at random one by one without replacement. Calculate the probability that the two selected pens are the same color.

A $\frac{26}{72}$

B $\frac{27}{72}$

C $\frac{34}{72}$

D $\frac{35}{72}$

13 Berikut merupakan jenis akaun simpanan yang mungkin dippunyai oleh seorang peniaga runcit kecuali

The following are the types of savings accounts that might had by a retailer except

A Akaun simpanan

Saving account

B Akaun simpanan tetap

Fixed deposit account

C Akaun semasa

Current account

D Akaun bank

Bank account

14 Aminah ingin mendepositkan RM20 000 ke dalam akaun simpanan tetap selama 2 tahun.

Pelan 1: Kadar faedah tahunan 3% dan dikompaun setiap 3 bulan.

Pelan 2: Kadar faedah tahunan 3.2% dan dikompaun setiap 6 bulan.

Berapakah perbezaan faedah yang didapati antara kedua-dua pelan tersebut?

Aminah wishes to deposit RM20 000 in a fixed deposit account for 2 years.

Plan 1: Annual interest rate 3% and compounded every 3 months.

Plan 2: Annual interest rate 3.2% and compounded every 6 months.

What is the different of interest earned between the two plans?

A RM79.07

B RM800.00

C RM1 231.98

D RM1 311.05

- 15 Seorang budak lelaki dengan ketinggian 1.6 m mendapati bayang-bayang dirinya berukuran 2 m di atas tanah. Anggarkan tinggi sepohon pokok jika perbezaan tinggi pokok tersebut dan bayang pokok itu adalah sebanyak 1.2 m.

A boy with a height of 1.6 m found that his shadow is 2 m on the ground. Estimate the height of the tree if the difference between the height of the tree and it's shadow is 1.2 m.

- | | |
|-----------------|----------------|
| A 2.67 m | C 4.8 m |
| B 0.96 m | D 5.6 m |

16

Luas objek <i>Area of object</i>	Luas imej <i>Area of image</i>	Faktor skala <i>Scale factor</i>
18	72	k

Cari nilai yang mungkin bagi k .

Find the possible value of k .

- | | |
|------------|------------------------|
| A 2 | C $\frac{1}{2}$ |
| B 4 | D $\frac{1}{4}$ |

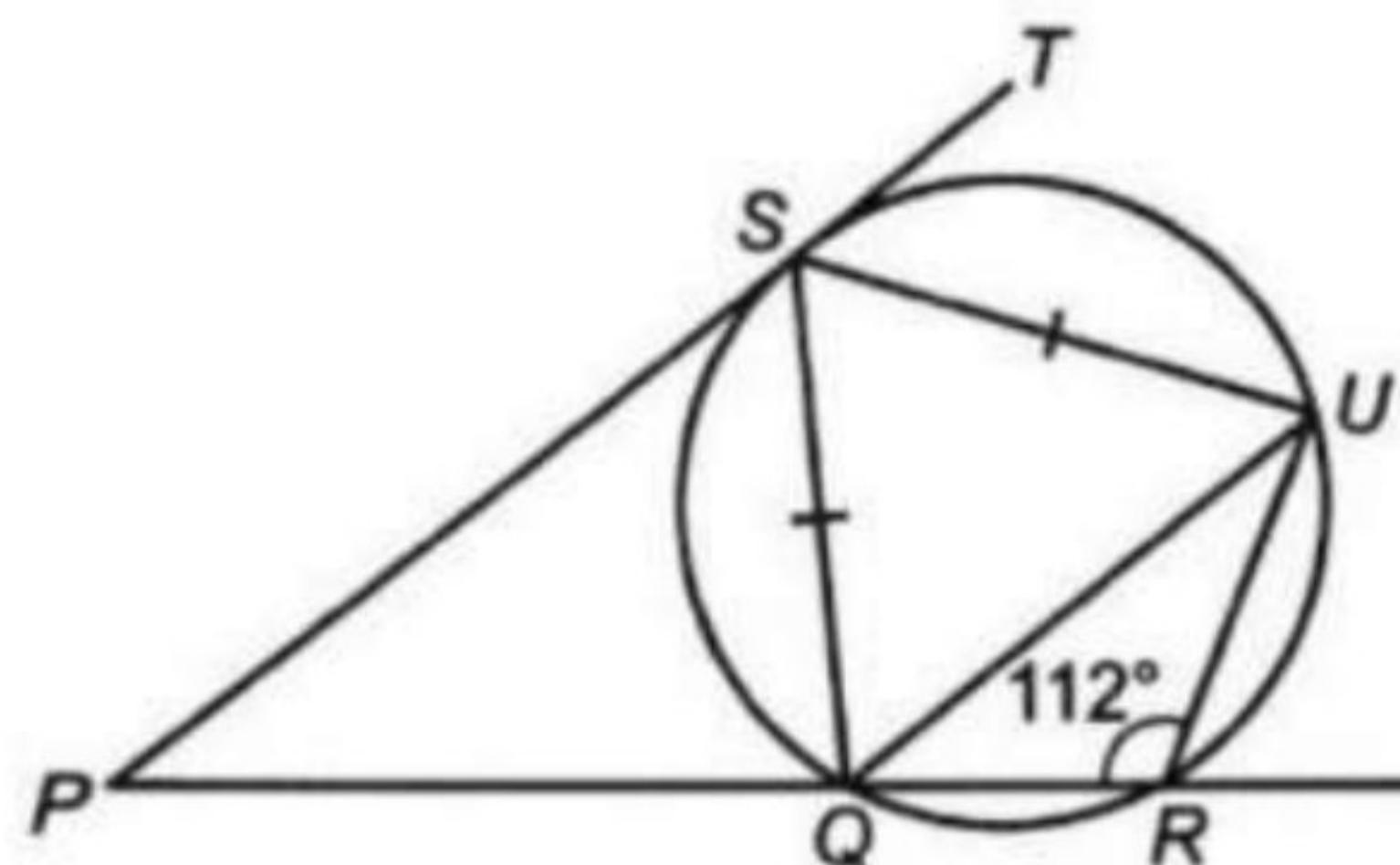
17 Faktorkan $6x^2 + x - 2$.

Factorise $6x^2 + x - 2$.

- | | |
|-----------------------------|-----------------------------|
| A $(2x + 1)(3x - 2)$ | C $(6x - 1)(3x + 2)$ |
| B $(6x + 1)(3x - 2)$ | D $(2x - 1)(3x + 2)$ |

- 18** Rajah 3 menunjukkan sebuah bulatan. Diberi PST ialah tangen kepada bulatan pada titik S . $SQRU$ ialah sebuah sisi empat kitaran. Diberi bahawa $QS = SU$ dan PQR ialah garis lurus.

Diagram 3 shows a circle. Given that PST is a tangent to a circle at point S . $SQRU$ is a cyclic quadrilateral. Given that $QS = SU$ and PQR is a straight line.



Rajah 3 / Diagram 3

Hitung $\angle TSU$.

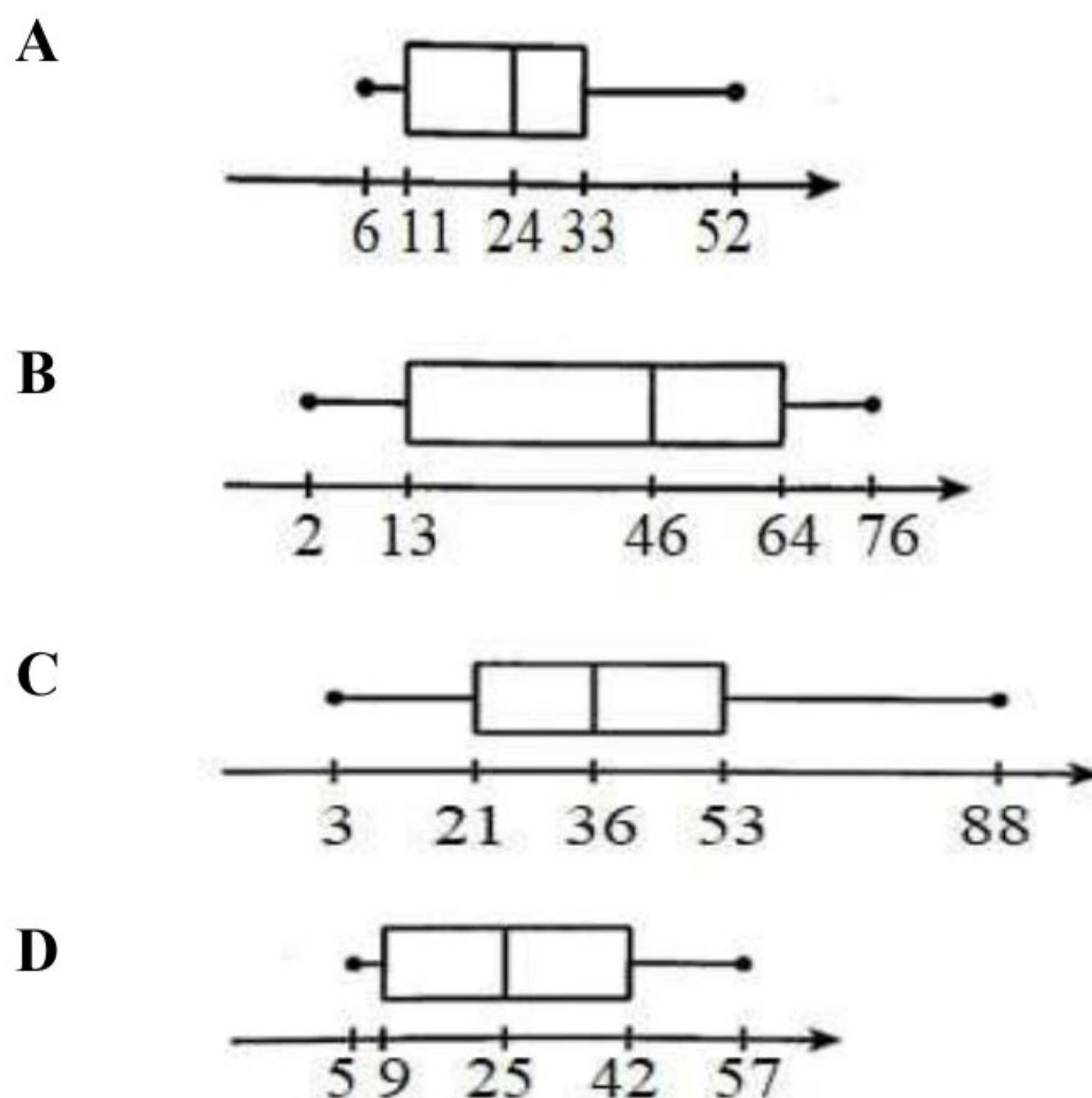
Find $\angle TSU$.

- | | | | |
|----------|------------|----------|------------|
| A | 34° | C | 56° |
| B | 48° | D | 62° |

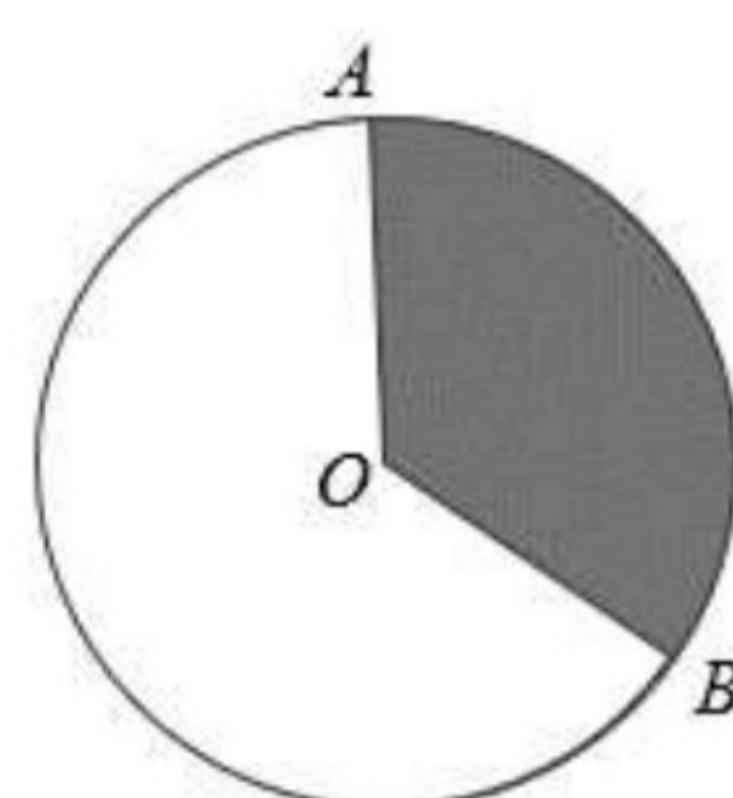
- 19** Bagi suatu taburan data terkumpul, median ialah 63 dan beza antara median dan kuartil pertama ialah 4. Jika julat antara kuartil ialah 8, cari kuartil pertama dan kuartil ketiga.
For a cumulative data distribution, the median is 63 and the difference between the median and the first quartile is 4. If the interquartile range is 8, find the first quartile and the third quartile.

	Kuartil pertama <i>First quartile</i>	Kuartil ketiga <i>Third quartile</i>
A	58	66
B	58	67
C	59	67
D	59	68

- 20** Dalam suatu set data, julat dan julat antara kuartil masing-masing ialah 52 dan 33. Antara plot kotak yang berikut, yang manakah mewakili maklumat diberi?
In a set of data, the range and the interquartile range are 52 and 33 respectively. Which of the following box plot represents the given information?



- 21** Rajah 4 menunjukkan sebuah bulatan berpusat di O dengan diameter 98 cm. Diberi luas sektor minor AOB ialah 2829.75 cm^2 .
Diagram 4 shows a circle with centre O with diameter 98 cm. Given the area of minor sector AOB is 2829.75 cm^2 .



Rajah 4 / Diagram 4

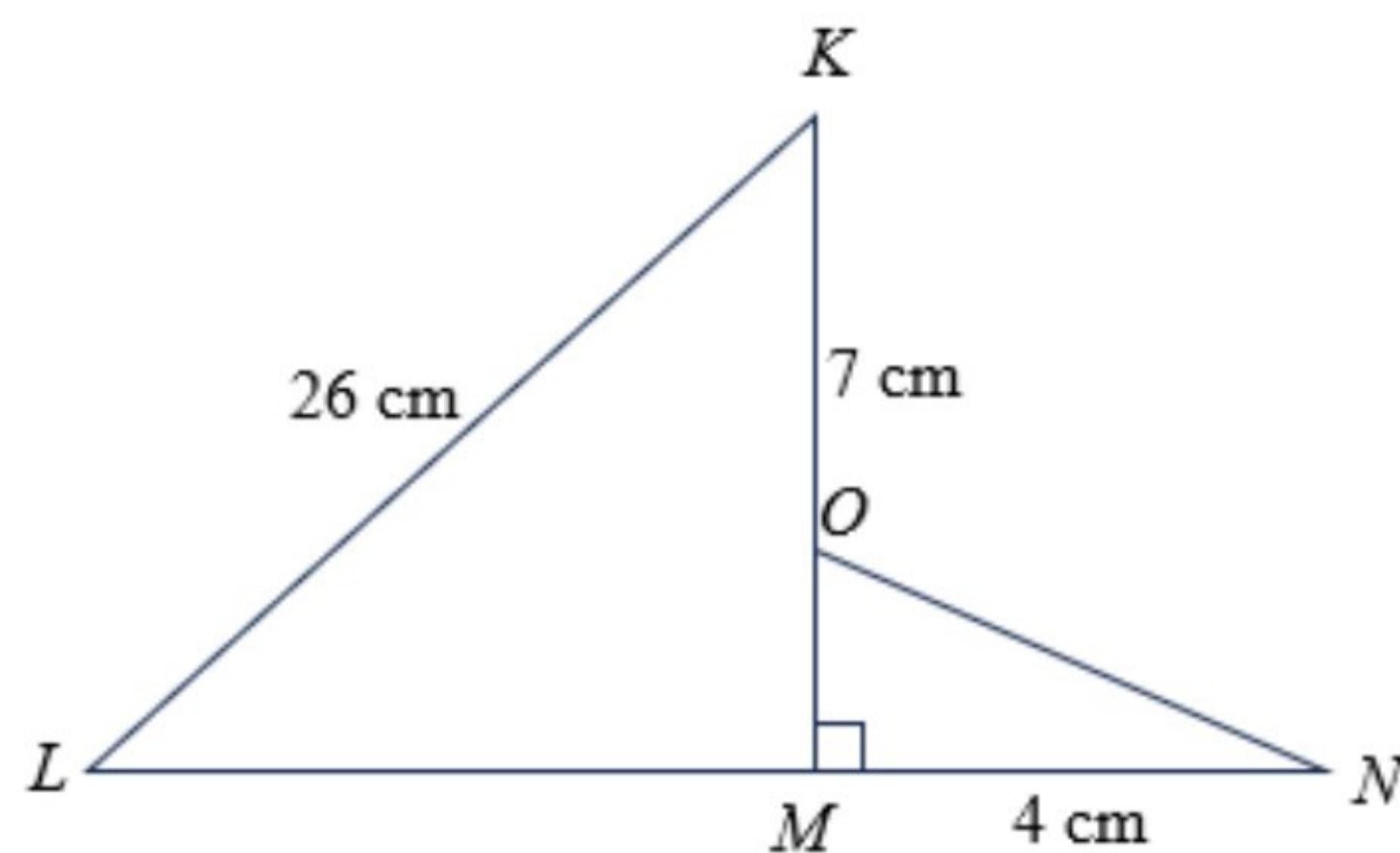
Cari sudut major AOB .

Find the major angle AOB .

[Guna / Use $\pi = \frac{22}{7}$]

- | | | | |
|----------|-----|----------|-----|
| A | 120 | C | 225 |
| B | 135 | D | 310 |

- 22** Dalam Rajah 5 di bawah, KLM dan MNO ialah dua buah segi tiga bersudut tegak.
In Diagram 5 below, KLM and MNO are right-angle triangles.



Rajah 5 / Diagram 5

Diberi $\cos KLM = \frac{12}{13}$, hitung panjang ON , dalam cm.

Given $\cos KLM = \frac{12}{13}$, calculate the length of ON , in cm.

- A** 3
B 5

- C** 10
D 24

- 23** Diberi $\xi = \{x : x \text{ ialah integer } 1 \leq x \leq 20\}$.
 Set $R = \{x : x \text{ ialah nombor perdana}\}$.
 Set $S = \{x : x \text{ ialah faktor bagi } 20\}$.
 Senaraikan semua unsur bagi $R \cap S'$.

Given that $\xi = \{x : x \text{ is an integer } 1 \leq x \leq 20\}$.

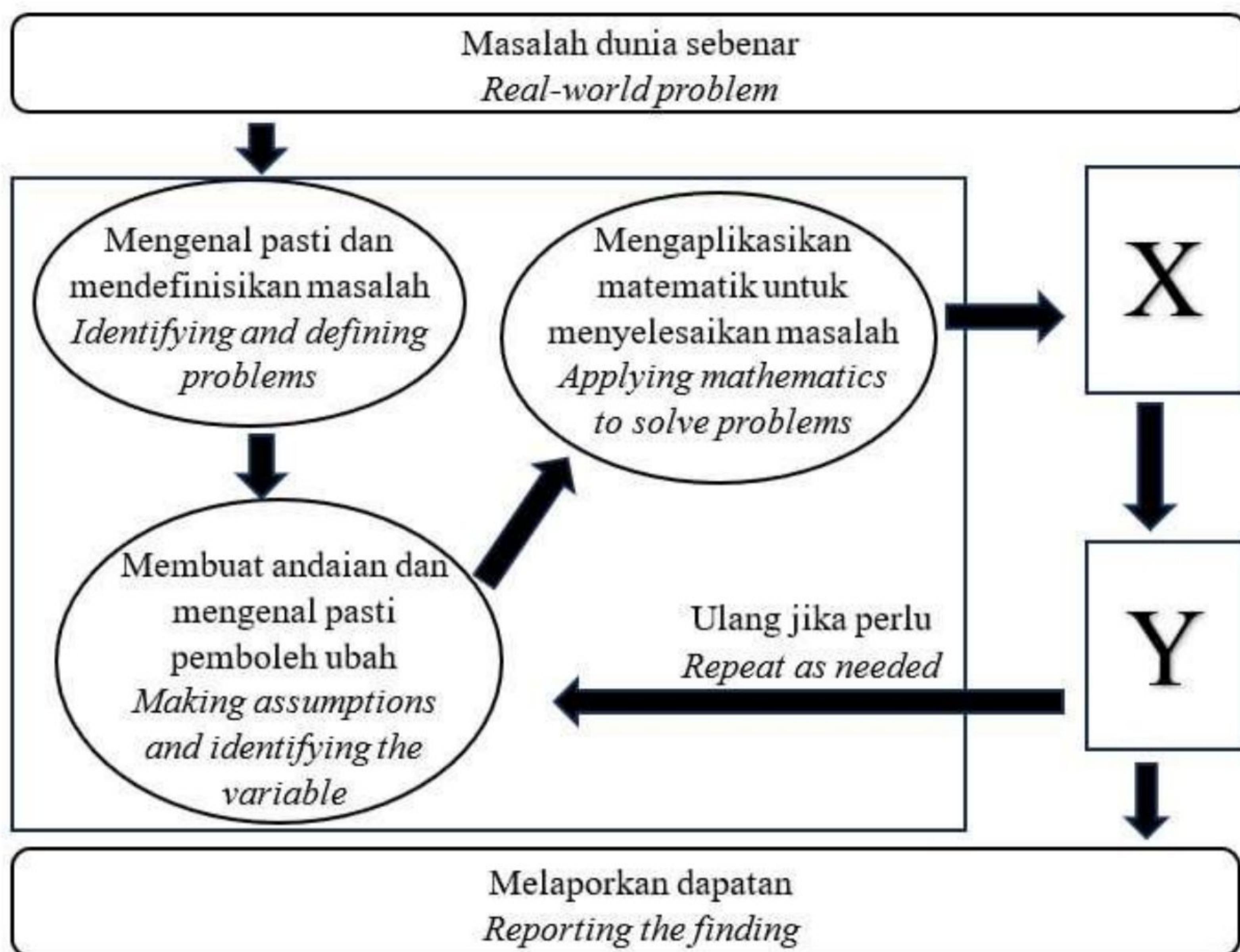
Set $R = \{x : x \text{ is a prime number}\}$.

Set $S = \{x : x \text{ is a factor of } 20\}$.

List all elements of $R \cap S'$.

- A** $\{2, 5\}$
B $\{3, 7, 11, 13, 17, 19\}$
C $\{1, 2, 3, 4, 5, 7, 10, 11, 13, 17, 19, 20\}$
D $\{2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19\}$

- 24 Rajah 6 menunjukkan ringkasan proses permodelan.
Diagram 6 shows the simplified modelling process.



Rajah 6 / Diagram 6

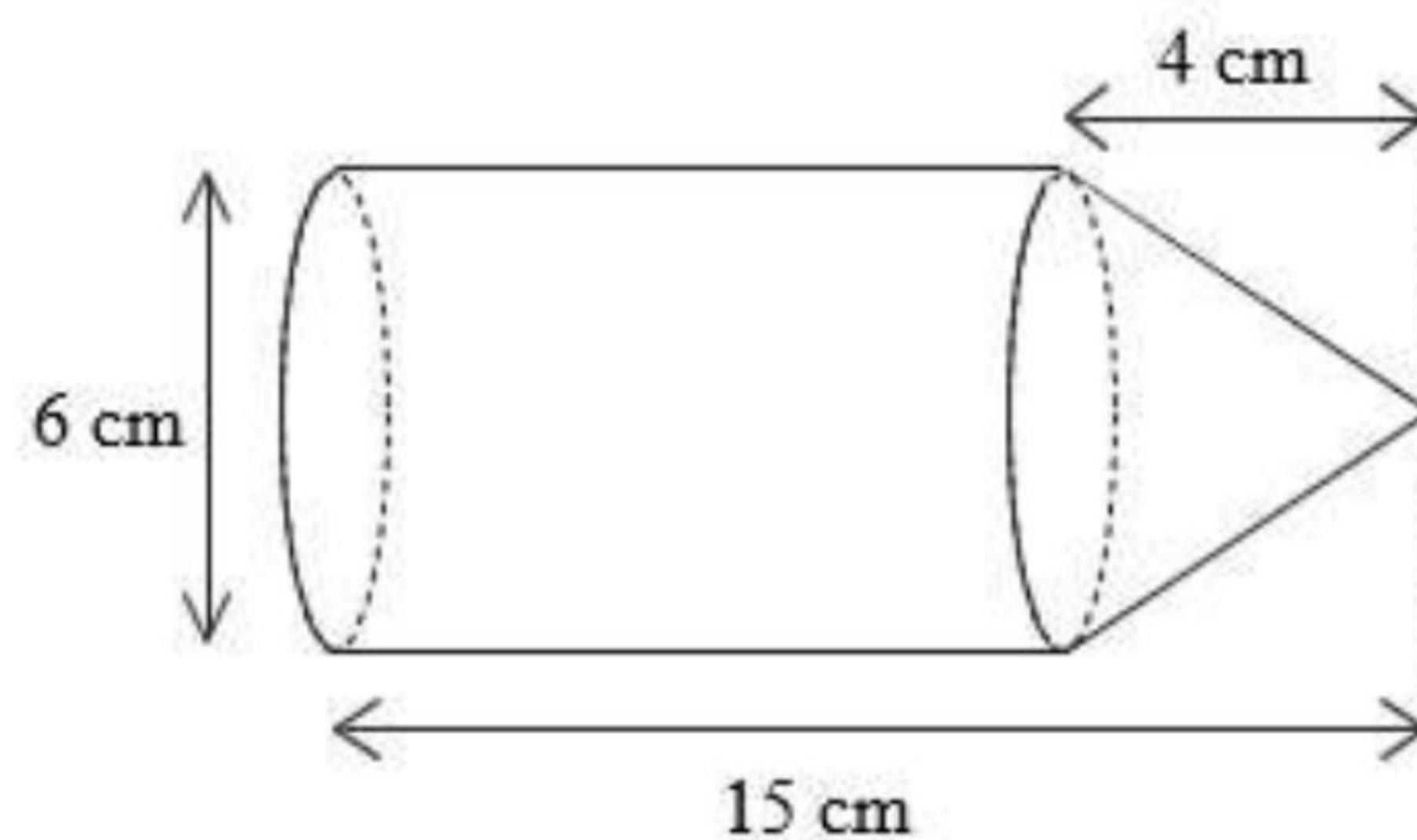
Apakah X dan Y?

What is X and Y?

	X	Y
A	Menjalankan ujikaji atau eksperimen. <i>Conduct a trial or experiment.</i>	Justifikasikan hasil dapatan. <i>Justify the findings.</i>
B	Justifikasikan hasil dapatan. <i>Justify the findings.</i>	Menjalankan ujikaji atau eksperimen. <i>Conduct a trial or experiment.</i>
C	Menentusahkan dan mentafsir penyelesaian dalam konteks masalah berkenaan. <i>Verifying and interpreting solution in context of the problem.</i>	Memurnikan model matematik. <i>Refining the mathematical model.</i>
D	Memurnikan model matematik. <i>Refining the mathematical model.</i>	Menentusahkan dan mentafsir penyelesaian dalam konteks masalah berkenaan. <i>Verifying and interpreting solution in context of the problem.</i>

- 25** Rajah 7 menunjukkan sebuah gabungan pepejal yang terbentuk daripada cantuman sebuah silinder dan sebuah kon.

Diagram 7 shows a composite solid formed by joining a cylinder and a cone.



Rajah 7 / Diagram 7

Cari jumlah luas permukaan, dalam cm^2 , gabungan pepejal tersebut.

Find the total surface area, in cm^2 , of the composite solid.

(Guna / Use $\pi = 3.142$)

- | | | | |
|----------|--------|----------|--------|
| A | 273.35 | C | 311.06 |
| B | 282.78 | D | 339.34 |

- 26** Kira sisihan piawai bagi data berikut.

Calculate the standard deviation of the following data.

10	11	12	14	17	18	23
----	----	----	----	----	----	----

- | | | | |
|----------|-------|----------|--------|
| A | 4.276 | C | 18.285 |
| B | 4.277 | D | 18.293 |

- 27 Salina memiliki sebuah rumah di Bukit Baru. Dia menerima bil cukai pintu pada kadar 9.5%. Diberi bahawa nilai tahunan rumahnya ialah RM5 000. Hitung cukai pintu yang perlu dibayar oleh Salina untuk setiap setengah tahun.

Salina owns a residential house in Bukit Baru. She receives property assessment tax bill at a rate of 9.5%. It is given that the annual value of her house is RM5 000. Calculate the property assessment tax payable by Salina for each half-year.

- | | | | |
|---|----------|---|----------|
| A | RM225.00 | C | RM450.00 |
| B | RM237.50 | D | RM475.00 |

- 28 Gaji bulanan Hazim ialah RM8 545 termasuk elaun. Pada tahun 2022, dia telah mendapat bonus sebanyak sebulan gaji dan elaun-elaun berjumlah RM15 000 yang dikecualikan cukai. Dia juga menderma kepada organisasi yang diluluskan oleh kerajaan berjumlah RM1 000 dan membayar zakat secara bulanan sebanyak RM100. Diberi jumlah pelepasan yang dibenarkan ialah RM20 500. Hitung pendapatan bercukai Hazim.

Hazim's monthly salary is RM8 545 including allowances. In year 2022, he has received a bonus of one month's salary and allowances amounting to RM15 000 which are exempt from tax. He also donated to an organization approved by the government amounting to RM1 000 and pays monthly zakat of RM100. It is given that the total tax relief was RM20 500. Calculate Hazim's chargeable income.

- | | | | |
|---|----------|---|----------|
| A | RM73 335 | C | RM77 852 |
| B | RM74 585 | D | RM89 585 |

- 29 Objek $M(3, 5)$ dipetakan kepada kedudukan $M'(-2, 8)$ di bawah suatu translasi. Tentukan kedudukan imej bagi $N(-1, 2)$ di bawah translasi yang sama.

Object $M(3, 5)$ is mapped onto position $M'(-2, 8)$ under a translation. Determine the position of image for $N(-1, 2)$ under the same translation.

- | | | | |
|---|----------|---|---------|
| A | (-6, 5) | C | (4, -1) |
| B | (-6, -1) | D | (4, 5) |

- 30** Titik P' ialah imej kepada titik P di bawah putaran 180° pada asalan. Jika koordinat P' ialah $(-3, 2)$, apakah koordinat bagi titik P ?

Point P' is the image of point P under 180° rotation about the origin. If the coordinates of point P' is $(-3, 2)$, what is the coordinates of point P ?

A $(3, 2)$

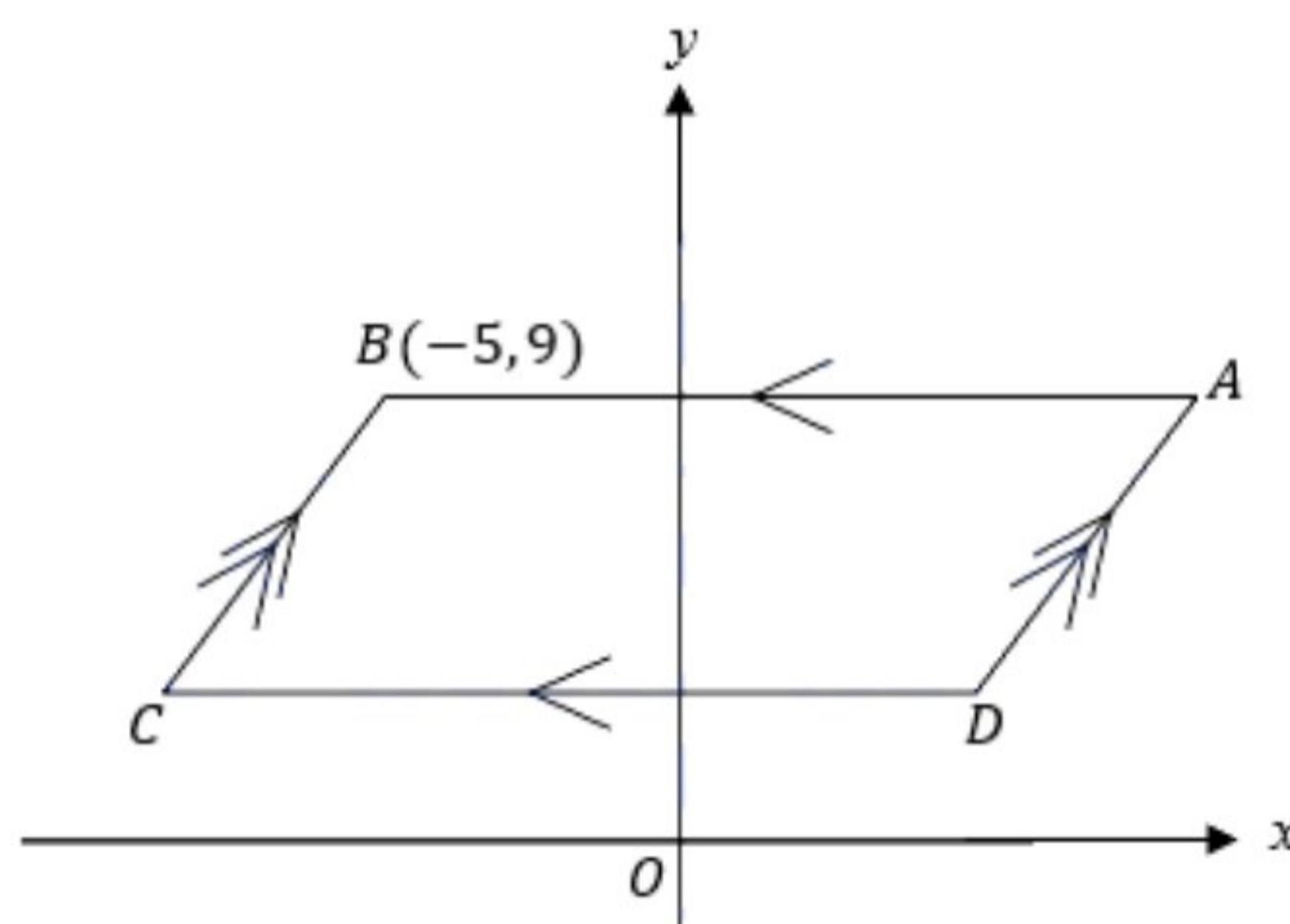
C $(-2, 3)$

B $(3, -2)$

D $(2, -3)$

- 31** Rajah 8 menunjukkan segi empat selari $ABCD$ pada suatu satah Cartes. AB adalah selari dengan paksi- x . Persamaan garis lurus AD ialah $\frac{x}{7} - \frac{y}{14} = 1$.

Diagram 8 shows parallelogram $ABCD$ on a Cartesian plane. AB is parallel to the x -axis. The equation of straight line AD is $\frac{x}{7} - \frac{y}{14} = 1$.



Rajah 8 / Diagram 8

Cari persamaan bagi garis lurus BC .

Find the equation of straight line BC .

A $y = 2x + 19$

C $y = -2x - 19$

B $y = -2x + 15$

D $y = 2x + 15$

- 32** Bilangan darjah yang manakah menunjukkan bahawa suatu graf tidak boleh dilukis?

Which number of degrees indicates that a graph cannot be drawn?

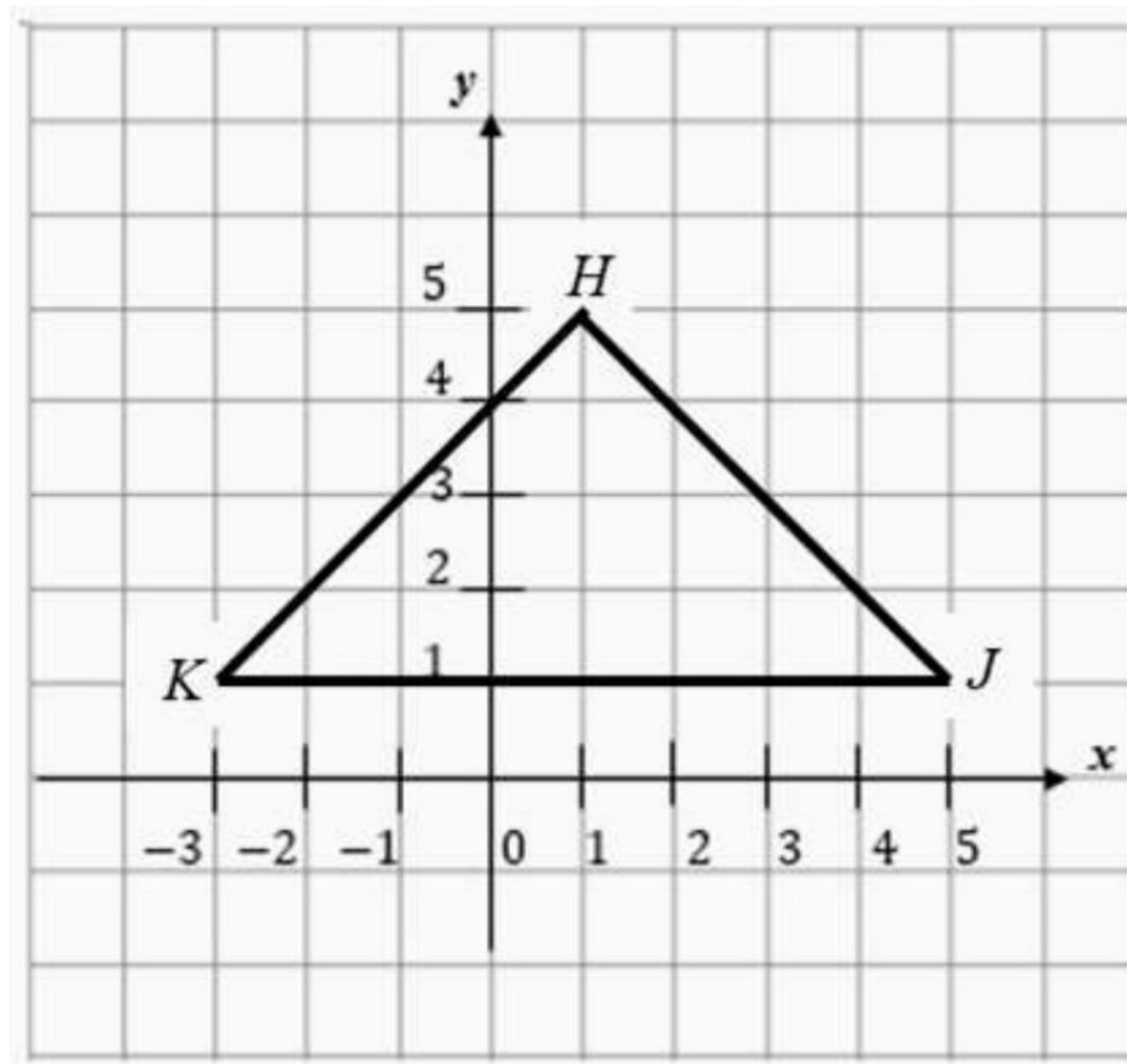
A $3, 4, 1, 2, 1, 1$

C $1, 3, 3, 2, 3, 1, 4$

B $1, 3, 3, 2, 3, 2$

D $1, 3, 4, 1, 2, 3, 2, 4$

- 33 Rajah 9 menunjukkan segi tiga sama kaki HKJ .
Diagram 9 shows an isosceles triangle HKJ.



Rajah 9 / Diagram 9

Hitung perimeter segi tiga tersebut.
Calculate the perimeter of the triangle.

- A 5.657
B 11.314

- C 19.314
D 21.667

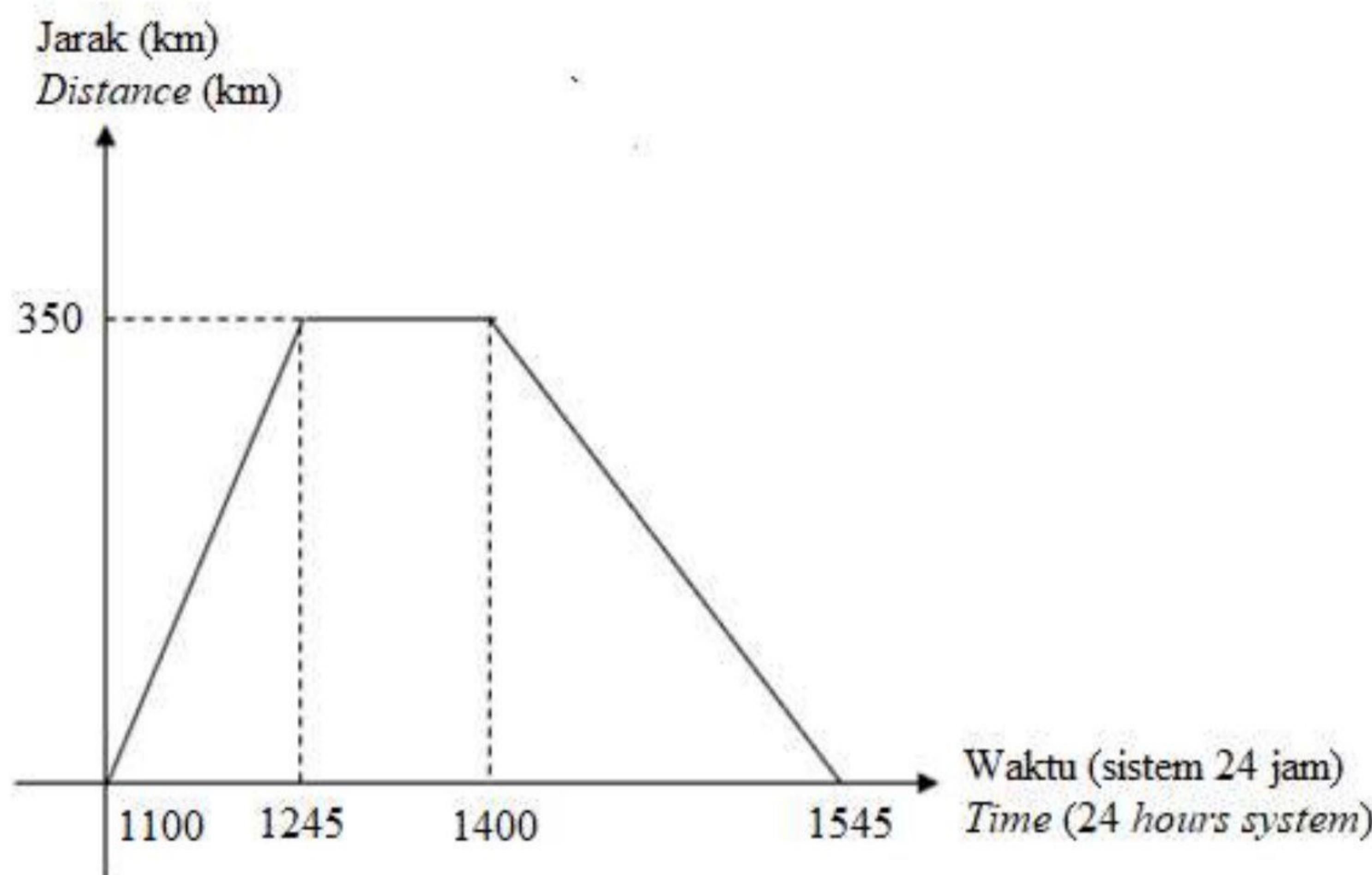
- 34 Diberi $m = 0.2633$ dan $n = 0.3$. Hitung nilai mn , seterusnya bundarkan jawapan betul kepada tiga angka bererti.
Given $m = 0.2633$ and $n = 0.3$. Calculate the value of mn , then round off the answer correct to three significant figures.

- A 0.0780
B 0.0789

- C 0.0790
D 0.07899

35

Rajah 10 menunjukkan graf jarak-masa bagi pergerakan sebuah lori.
Diagram 10 shows the distance-time graph for the movement of a lorry.



Rajah 10 / Diagram 10

Nyatakan tempoh masa, dalam jam, lori itu berhenti.

State the duration of time, in hour, the lorry stopped.

- A 1.15 jam / hours
 B 1.25 jam / hours

- C 1.35 jam / hours
 D 2 jam / hours

36

Jumlah pendapatan Encik Jack dan isterinya adalah sebanyak RM12 600. Mereka mempunyai tiga orang anak dan mereka ingin menyimpan dana pendidikan anak-anak mereka sebanyak RM250 000 dalam tempoh 15 tahun bermula sekarang. Berapakah jumlah minimum yang perlu disimpan setiap bulan?

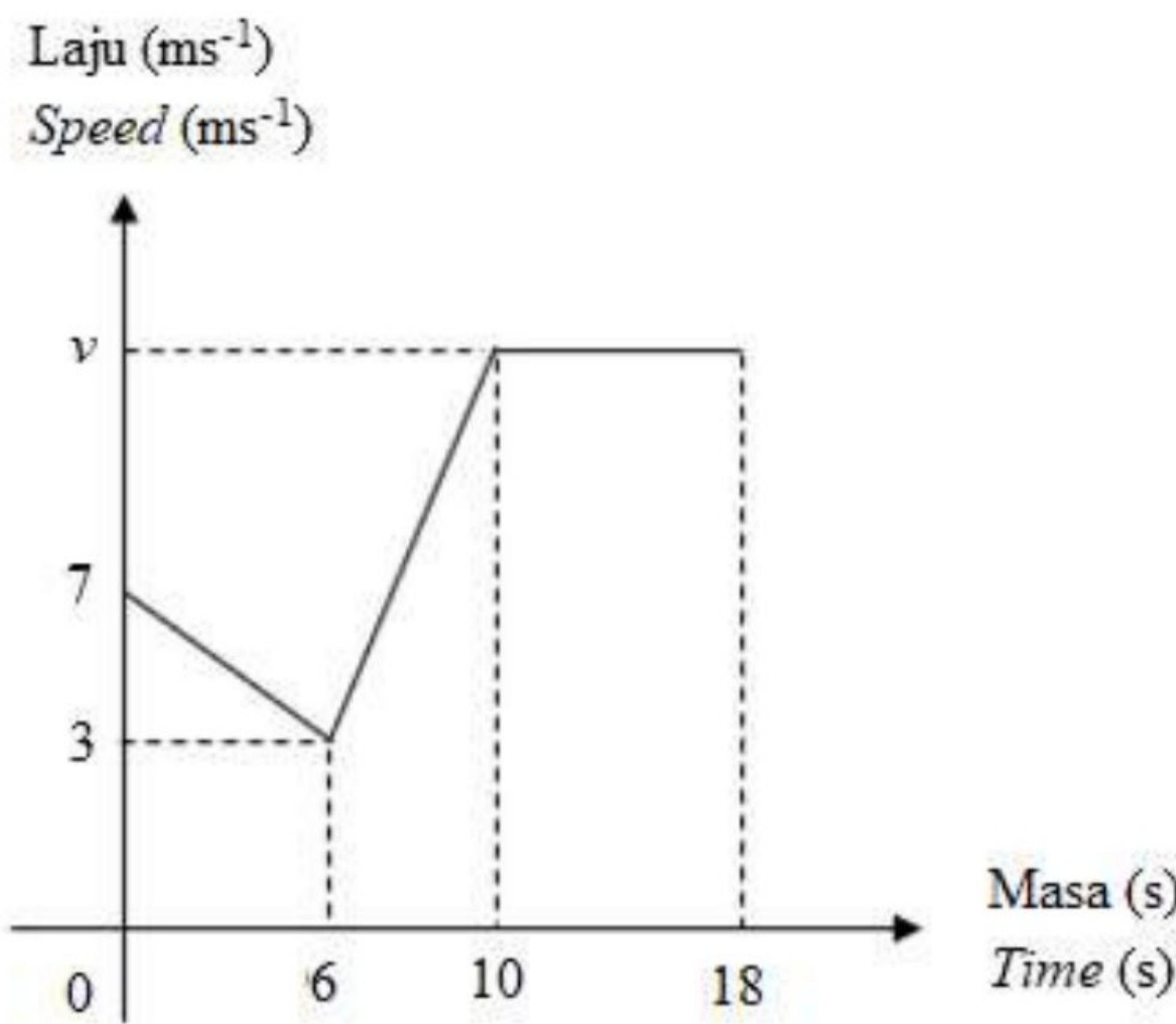
The total income of Encik Jack and his wife is RM12 600 a month. They have three children and they want to save their children's education fund of RM250 000 within 15 years from now. What is the minimum amount to save each month?

- A RM1 340
 B RM1 360

- C RM1 380
 D RM1 400

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- 37** Rajah 11 menunjukkan graf laju-masa bagi satu zarah dalam tempoh 18 saat.
Diagram 11 shows speed-time graph of a particle within 18 seconds.



Rajah 11 / Diagram 11

Hitung nilai v jika jumlah jarak yang dilalui oleh zarah itu semasa laju seragam ialah 72 m.

Calculate the value of v if the total distance travelled by the particle during uniform speed is 72 m.

A 6

C 8

B 7

D 9

- 38** Diberi $\tan x = -1.732$ and $0^\circ \leq x \leq 360^\circ$. Cari dua nilai yang mungkin bagi x .
Given $\tan x = -1.732$ and $0^\circ \leq x \leq 360^\circ$. Find two possible values of x .

A 60° dan / and 120°
B 60° dan / and 240°

C 120° dan / and 300°
D 240° dan / and 300°

- 39** Jadual 1 menunjukkan kadar premium tahunan per RM1 000 nilai muka insurans hayat boleh baharu yang ditawarkan oleh Syarikat Bitara.

Table 1 shows the annual premium rate per RM1 000 face value of renewable life insurance offered by Syarikat Bitara.

Umur <i>Age</i>	Lelaki / Male (RM)		Perempuan / Female (RM)	
	Bukan perokok <i>Non-smoker</i>	Perokok <i>Smoker</i>	Bukan perokok <i>Non-smoker</i>	Perokok <i>Smoker</i>
27	2.13	2.72	1.18	1.40
28	2.13	2.73	1.19	1.42
29	2.13	2.75	1.21	1.44
30	2.13	2.79	1.23	1.46

Jadual 1 / *Table 1*

Dengan nilai muka sebanyak RM140 000. Hitung premium tahunan bagi seorang lelaki berumur 28 tahun yang tidak merokok.

Based on the face value of RM140 000. Calculate the annual premium for a 28-year-old man who does not smoke.

- | | | | |
|----------|----------|----------|----------|
| A | RM166.60 | C | RM398.20 |
| B | RM298.20 | D | RM382.20 |

- 40** Puan Syuhada telah menjalani pembedahan mata dengan kos perubatan sebanyak RM10 000. Polisi insurans perubatan yang diambil olehnya mengenakan deduktibel sebanyak RM1 000 dan ko-insurans 90/10. Berapakah jumlah wang yang perlu ditanggung oleh Puan Syuhada bagi kos perubatannya?

Puan Syuhada has undergone eye surgery with a medical cost of RM10 000. The medical insurance policy taken by her has a deductible of RM1 000 and co-insurance 90/10. How much money does Puan Syuhada need to borne for her medical cost?

- | | | | |
|----------|---------|----------|---------|
| A | RM900 | C | RM1 900 |
| B | RM1 100 | D | RM8 100 |