

- 1 Hitung hasil darab bagi 0.1987 dan 0.3.
Bundarkan jawapan betul kepada dua angka bererti.

T3

Calculate the product of 0.1987 and 0.3.

B2

Round off the answer correct to two significant figures.

A ~~0.5~~

B 0.059

C 0.06

D 0.060

$\begin{array}{r} 0.1987 \times 0.3 \\ \hline 0.05961 \end{array}$
--

$$= 0.060$$

- 2 Diberi bahawa $100706_8 = p(8^5) + 7(8^q) + 6(8^r)$.

T4

Antara berikut, manakah nilai p , nilai q , dan nilai r yang betul?

B2

Given that $100706_8 = p(8^5) + 7(8^q) + 6(8^r)$.

Which of the following is the correct values of p , of q and of r ?

	p	q	r
A	1	2	0
B	5	3	1
C	1	3	1
D	5	2	0

$$p = 1$$

$$q = 2$$

$$r = 0$$

- 3 $\frac{0.0000086 - 2.4 \times 10^{-7}}{0.03} =$

T3

B2

$\begin{array}{r} 0.0000086 - 2.4 \times 10^{-7} \\ \hline 0.03 \end{array}$
--

$$0.00027866666$$

A 2.864×10^{-4} B 2.787×10^{-4} C 2.859×10^{-3} D 2.866×10^{-3}

$$= 2.787 \times 10^{-4}$$

- 4 Diberi $R(-12,0)$ dan S berada di paksi- y dengan jarak 16 unit ke bawah dari paksi- x .

T2 Nyatakan titik tengah bagi garis lurus RS .

- B7 Given that $R(-12,0)$ and S is located on the y -axis with 16 units downwards from the x -axis.

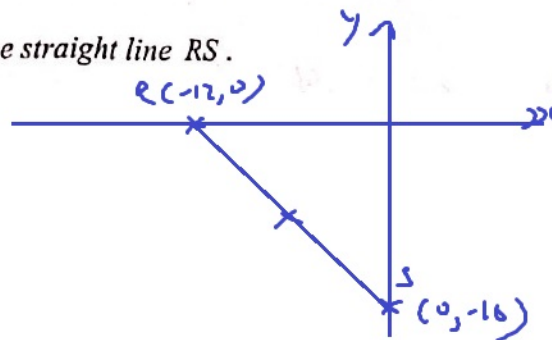
State the midpoint of the straight line RS .

A $(-6,8)$

☒ B $(-6,-8)$

C $(6,-8)$

D $(6,8)$



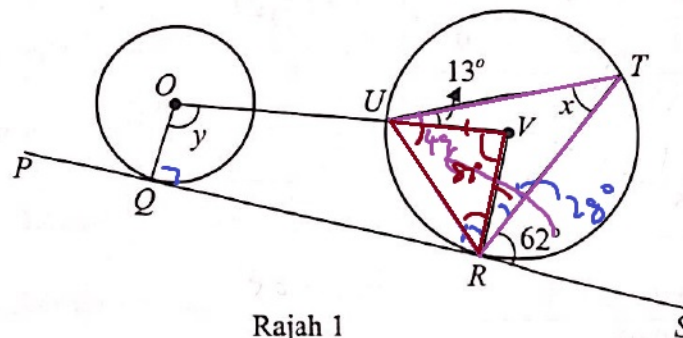
$$m\left(\frac{-12+0}{2}, \frac{0+(-16)}{2}\right)$$

$$m(-6, -8)$$

- 73B6 5 Rajah 1 menunjukkan dua buah bulatan masing-masing berpusat di O dan V .
Diagram 1 shows two circles with centres O and V respectively.

(5) $y = \frac{180-82}{2}$

$$x+y = 41+98 = 139$$



Rajah 1
Diagram 1

$PQRS$ ialah tangen sepunya kepada kedua-dua bulatan.

Hitung nilai $x + y$.

$PQRS$ is a common tangent to both circles.

Calculate the value of $x + y$.

☒ A 139°

B 149°

C 152°

D 154°

① $90-62$

② $62-13$

③ $180-49-49$

④ $x =$

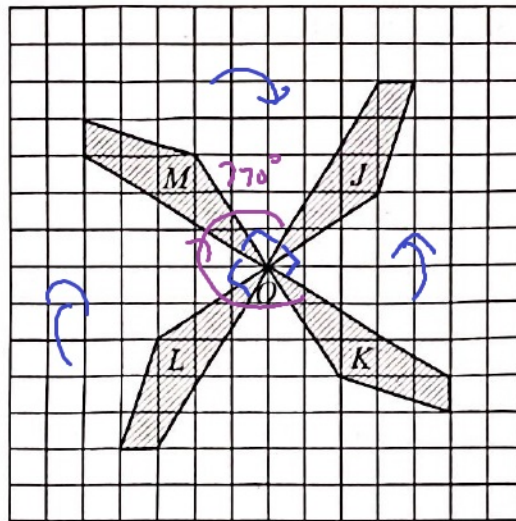
$82 \div 2$

- 6 Rajah 2 menunjukkan empat poligon, J , K , L dan M yang kongruen di bawah satu putaran pada pusat O .

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Diagram 2 shows four congruent polygons, J , K , L and M under a rotation about the centre O .

B11



Rajah 2
Diagram 2

Antara berikut, manakah pasangan putaran yang betul?
Which of the following is the correct rotation pair?

	Objek Object	Sudut dan arah putaran Angle and direction of rotation	Imej Image
A	J	90° lawan arah jam 90° anticlockwise	K
B	M	90° lawan arah jam 90° anticlockwise	J
C	L	270° ikut arah jam 270° clockwise	M
D	K	270° ikut arah jam 270° clockwise	J

- 7 Diberi luas objek dan imej di bawah suatu pembesaran masing-masing ialah 63 cm^2 dan 7 cm^2 .
Hitung faktor skala bagi pembesaran itu.

TS
BS

Given that the area of object and the image under an enlargement are 63 cm^2 and 7 cm^2 respectively.

Calculate the scale factor of the enlargement.

$$A_1 = k^2 \times A_0$$

$$7 = k^2 \times 63$$

$$k^2 = \frac{7}{63} = \frac{1}{9}$$

$$k = \pm \sqrt{\frac{1}{9}} = \pm \frac{1}{3}$$

A $\frac{1}{9}$

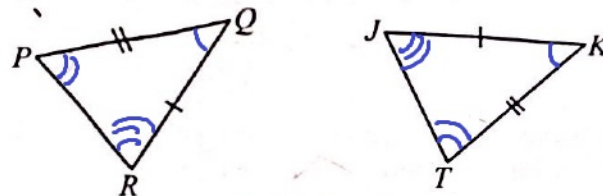
☒ B $\frac{1}{3}$

C 3

D 9

- 8 Rajah 3 menunjukkan dua segi tiga PQR dan JKT .
Diagram 3 shows two triangles PQR and JKT .

TS
BS



Rajah 3
Diagram 3

Antara berikut, manakah menunjukkan sifat yang betul jika segitiga PQR dan JKT adalah kongruen?

Which of the following is correct if the triangle PQR and JKT are congruent?

A $\angle PQR = \angle JTK$ α

B $\angle PQR = \angle TJK$ α

C $\angle PRQ = \angle JTK$ α

☒ D $\angle PRQ = \angle TJK$

SULIT

- 9 Satu fungsi kuadratik, $f(x) = ax^2 + bx + c$, dengan keadaan $a < 0$ melalui titik (4,0) dan (-6,0).

74
31

Tentukan persamaan fungsi kuadratik bagi $f(x)$.

A quadratic function, $f(x) = ax^2 + bx + c$, where $a < 0$ passing through (4,0) and (-6,0).

State the equation of the quadratic function of $f(x)$.

A $f(x) = -x^2 - 2x - 24$

B $f(x) = -x^2 + 2x + 24$

☒ C $f(x) = -x^2 - 2x + 24$

D $f(x) = -x^2 + 2x - 24$

roots: 4, -6
puncak: 4, -6
 $2 = 4 \quad 2 = -6$
 $x - 4 = 0 \quad x + 6 = 0$
 $f(x) = -[(x-4)(x+6)]$
 $= -[x^2 + 6x - 4x - 24]$
 $= -x^2 - 2x + 24$

- 10 Diberi bahawa
Given that

73
31

$$3^2 p^6 q^x \times \left(\frac{p^{-5} q^4}{p^3} \right) = \frac{9}{p^y q^3}$$

$$3^2 p^6 q^x \times \left(\frac{p^{-5} q^4}{p^3} \right) =$$

Hitung nilai x dan nilai y .

Calculate the value of x and of y .

A $x = -7, y = 4$

☒ B $x = -7, y = 2$

C $x = 1, y = -4$

$x = 7, y = -2$

$x + 4 = -3$
 $x = -3 - 4$
 $= -7$
 $-y = -2$
 $y = 2$

$= 9 p^{6+(-5)-3} q^{x+4}$
 $= 9 p^{-2} q^{x+4}$
 $\frac{9}{p^y q^3} = 9 p^{-y} q^{-3}$

- 11 Antara pernyataan majmuk berikut, yang manakah adalah benar?
Which of the following compound statements is true?

74
33

- ☒ A 21 dan 35 ialah faktor bagi 7.
21 and 35 are factors of 7.

$21 \div 7 = 3$ and $35 \div 7 = 5$
 F and $F = F$

- B $5x + 7$ ialah ungkapan dan persamaan linear.
 $5x + 7$ is a linear expression and equation.

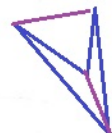
$" = "$ B and $F \Rightarrow F$

- ☒ C Sisi empat mempunyai dua pepenjuru atau semua sisi sama panjang.
Quadrilaterals have two diagonals or all equal sides.

- D $4 \in \{1, 3, 7\}$ atau $\{2, 3\} \subset \{2, 4, 8\}$

$4 \in \{1, 3, 7\}$ or $\{2, 3\} \subset \{2, 4, 8\}$

F or $F \Rightarrow F$



- 12 Sebuah peta dilukis dengan skala 1:250 000. $= 1\text{ cm} : 250\,000\text{ cm}$
 Hitung jarak sebenar, dalam km, sebatang jalan raya yang panjangnya 10 cm pada peta tersebut.

T3
B4

A map is drawn to scale of 1:250 000.

Calculate the actual length, in km, of a road that is 10 cm long on the map.

- (A) 25
 B 250
 C 25 000
 D 2 500 000

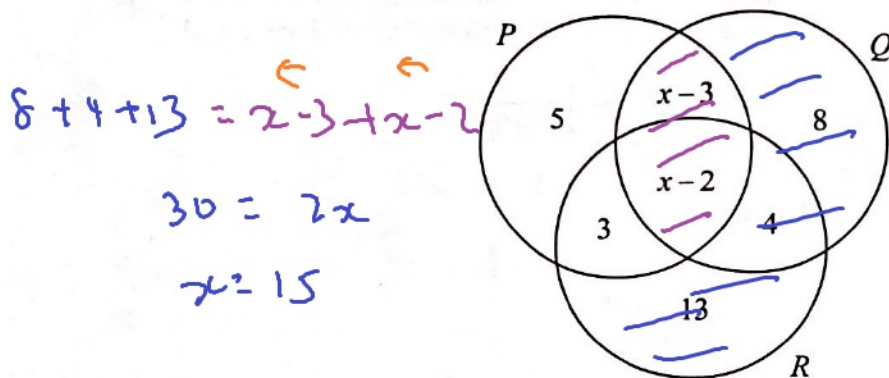
$$\begin{array}{ccc} D & O & \\ 1\text{ cm} & 25\text{ km} & \\ 10\text{ cm} & \times & x \end{array}$$

$$\begin{aligned} x &= \frac{10 \times 250\,000}{1} \\ &= 2\,500\,000\text{ cm} \\ &= 25\text{ km} \end{aligned}$$

km
m
cm

- 13 Rajah 4 menunjukkan gambar rajah Venn dengan set semesta $\xi = P \cup Q \cup R$.
 Diagram 4 shows a Venn diagram with universal set $\xi = P \cup Q \cup R$.

T4
B4



Rajah 4
 Diagram 4

Diberi bahawa $n(P') = n(P \cap Q)$.

Tentukan nilai x .

Given that $n(P') = n(P \cap Q)$.

Determine the value of x .

- A 24
 (B) 15
 C 13
 D 10

- 14 Diberi bahawa garis lurus $5x+3y=15$ adalah selari dengan garis lurus $2y=4-hx$.
Hitung nilai h .

73

B9

Given that the straight line $5x+3y=15$ is parallel to the straight line $2y=4-hx$.
Calculate the value of h .

A $-\frac{10}{3}$

B $-\frac{6}{5}$

C $\frac{6}{5}$

D $\frac{10}{3}$

$$5x+3y=15$$

$$3y = -5x + 15$$

$$y = -\frac{5}{3}x + 5$$

$$m_1 = m_2$$

$$-\frac{5}{3} = -\frac{h}{2}$$

$$2y = 4 - hx$$

$$y = 2 - \frac{h}{2}x$$

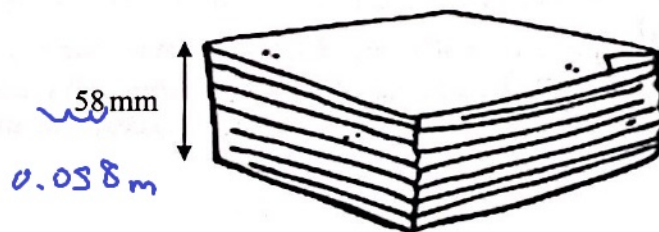
$$y = -\frac{h}{2}x + 2$$

$$h = \frac{10}{3}$$

- 15 Rajah 5 menunjukkan satu rim kertas yang mempunyai 750 helai kertas.
Diagram 5 shows a ream of 750 sheets of paper.

73

B2



Rajah 5
Diagram 5

Hitung ketebalan, dalam m, sehela kertas.
Calculate the thickness, in m, of a sheet of paper.

A 7.733×10^{-2}

B 1.293×10^{-2}

C 1.293×10^{-3}

D 7.733×10^{-5}

$$\frac{m}{mm} \times 1000$$

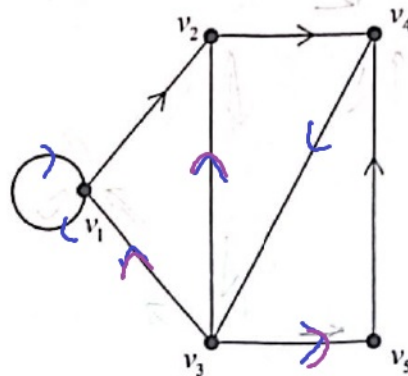
$$0.058 \div 750$$

$$0.00007733333$$

$$7.733 \times 10^{-5}$$

- 16 Rajah 6 menunjukkan satu graf terarah yang tidak lengkap.
Diagram 6 shows an incomplete directed graph.

74
B5



Rajah 6
Diagram 6

Diberi bahawa $d_{in}(v_2) = d_{in}(v_4) = d_{out}(v_1) = 2$ dan $d_{in}(v_5) = d_{out}(v_5)$.

Tentukan $d_{out}(v_3)$. = 3

Given that $d_{in}(v_2) = d_{in}(v_4) = d_{out}(v_1) = 2$ and $d_{in}(v_5) = d_{out}(v_5)$.

Determine $d_{out}(v_3)$.

- A 1
B 2
☒ C 3
D 4

- 17 Negara Malaysia mengamalkan perbankan dwisistem iaitu sistem perbankan konvensional dan sistem perbankan Islam.

73
B3

Berdasarkan pernyataan yang berikut, yang manakah pernyataan yang tidak betul mengenai sistem perbankan Islam?

The country of Malaysia practices dual banking system which is the conventional banking system and the Islamic banking system.

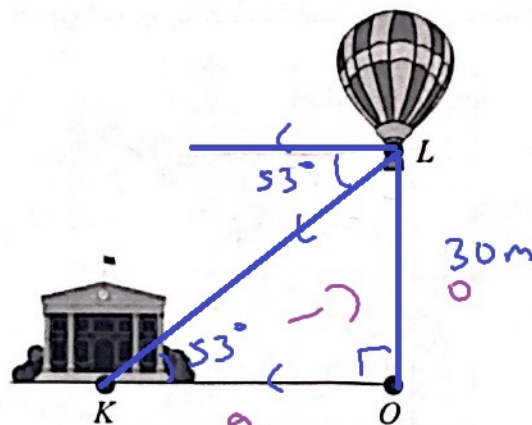
Based on the following statement, which is incorrect about the Islamic banking system?

- A Risiko diuruskan mengikut perjanjian.
Risk is managed according to the agreement.
- B Berdasarkan hukum Islam (syarak) ✓
Based on Islamic law (syarak)
- C Mengikut prinsip keadilan, halal dan perkongsian keuntungan dan tanpa riba. ✓
Based on the principle of justice, halal and profit-sharing and without usury.
- ☒ D Menentukan kadar pulangan pada peringkat awal penyimpanan sebelum tempoh matang. Lakir steps
Specify rate of return on early stage of saving before maturity period.

- 18 Rajah 7 menunjukkan kedudukan sebuah belon panas dan sebuah dewan orang ramai.
Diagram 7 shows the position of a hot air balloon and a public hall.

13
B5

40m



Rajah 7
Diagram 7

$$\tan 53^\circ = \frac{30}{OK}$$

$$OK = \frac{30}{\tan(53^\circ)}$$

$$= 22.61 \text{ m}$$

Belon panas naik tegak setinggi 30 m dari titik O . Diberi bahawa sudut tunduk dewan orang ramai, K dari belon panas, L ialah 53° .
Hitung jarak mengufuk dewan orang ramai ke titik O .

The hot air balloon rises up to a height of 30 m from point O . Given that the angle of depression of the public hall, K from the hot air balloon, L is 53° .
Calculate the horizontal distance of the public hall to point O .

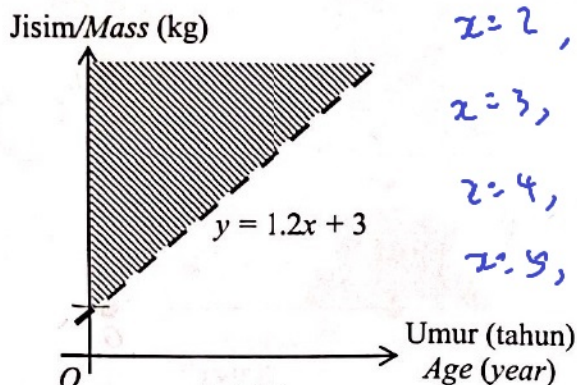
A 39.81

B 37.56

C 23.96

D 22.61

- 19 Rajah 8 menunjukkan graf jisim bagi kanak-kanak lelaki sehingga berumur 5 tahun. Kawasan berlorek mewakili perkembangan kanak-kanak yang sihat.
Diagram 8 shows the graph of mass for boys until the age of 5 years old.
The shaded region represents child's healthy development.



Rajah 8
Diagram 8

$$\begin{aligned} x=2, & y=1.2(2)+3=5.4 \\ x=3, & y=1.2(3)+3=6.6 \\ x=4, & y=1.2(4)+3=7.8 \\ x=5, & y=1.2(5)+3=9 \end{aligned}$$

Antara kanak-kanak lelaki berikut, siapakah yang mempunyai perkembangan yang sihat?

Which of the following boys has a healthy development?

	Kanak-kanak lelaki Boys	Umur (tahun) Age (year)	Jisim (kg) Mass (kg)
A	P	2	5 < 5.4
B	Q	3	6 < 6.6
☒ C	R	4	8 > 7.8
D	S	5	9 = 9

- 20 Kecerunan garis lurus RS ialah $-\frac{2}{3}$ dan koordinat titik R ialah $(-12, 0)$.

Tentukan pintasan-y bagi RS. $x=0, (0, y)$

The gradient of the straight line RS is $-\frac{2}{3}$ and the coordinate of point R is $(-12, 0)$.

Determine the y-intercept of RS.

- A -18
☒ B -8
C 8
D 18

$$\begin{aligned} \frac{y-0}{0-(-12)} &= -\frac{2}{3} \\ y &= -\frac{2}{3}(12) \\ &= -8 \end{aligned}$$

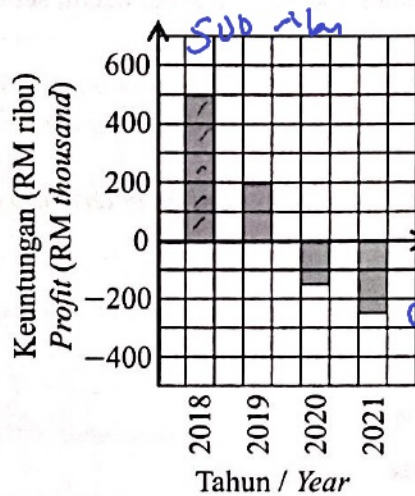
$$m = -\frac{y_2}{x_2}$$

$$-\frac{2}{3} = \frac{y}{-12}$$

$$\begin{aligned} y &= -\frac{2}{3}(-12) \\ &= -8 \end{aligned}$$

- 21 Rajah 9 ialah carta palang yang menunjukkan keuntungan tahunan sebuah kedai pakaian seragam sekolah dari tahun 2018 hingga 2021.

Diagram 9 shows the bar chart of yearly profits for a school uniform shop from 2018 to 2021.



Rajah 9
Diagram 9

$$\begin{aligned}
 2022 &: -250 + 480 \\
 &= 230 \text{ ribu} \\
 \text{Beza} &= 500 - 230 \\
 &= 270 \text{ ribu}
 \end{aligned}$$

Jika keuntungan pada tahun 2022 bertambah sebanyak RM480 ribu dari tahun sebelumnya.

Hitung beza keuntungan pada tahun 2022 berbanding 2018.

If the profit gain in 2022 increased by RM480 thousand compared to the year before. Calculate the difference of profit gained in 2022 compared to 2018.

- A 20 000
☒ B 270 000
 C 370 000
 D 420 000
- 22 Ungkapkan $\frac{-10mn}{4m^2 - n^2} - \frac{5m}{2m + n}$ sebagai satu pecahan tunggal dalam bentuk termudah.

Express $\frac{-10mn}{4m^2 - n^2} - \frac{5m}{2m + n}$ as a single fraction in its simplest form.

$$\begin{aligned}
 \text{A } \frac{-5m}{2m - n} & \quad \frac{-10mn}{4m^2 - n^2} - \frac{5m}{2m + n} = \frac{-10mn}{(2m+n)(2m-n)} - \frac{5m(2m-n)}{(2m+n)(2m-n)} \\
 & = \frac{-10mn - 10m^2 + 5mn}{(2m+n)(2m-n)} \\
 & = \frac{-10m^2 - 5mn}{(2m+n)(2m-n)} \\
 & = \frac{-5m(2m+n)}{(2m+n)(2m-n)} \\
 & = \frac{-5m}{2m-n}
 \end{aligned}$$

$$\frac{4000}{1} = 4000$$

$$\frac{8000}{2} = 4000$$

- 23 Kedai Moong mempunyai stok 4000 buah buku nota dan 8 000 batang pen. Kedai itu menawarkan set kombo yang terdiri daripada satu buku dan dua batang pen. Set kombo tersebut dijual pada harga RM $(2j + 5k)$.
 T2
 B3 Ungkapkan hasil jualan set kombo tersebut dalam sebutan j dan k , jika semua set kombo berjaya dijual.

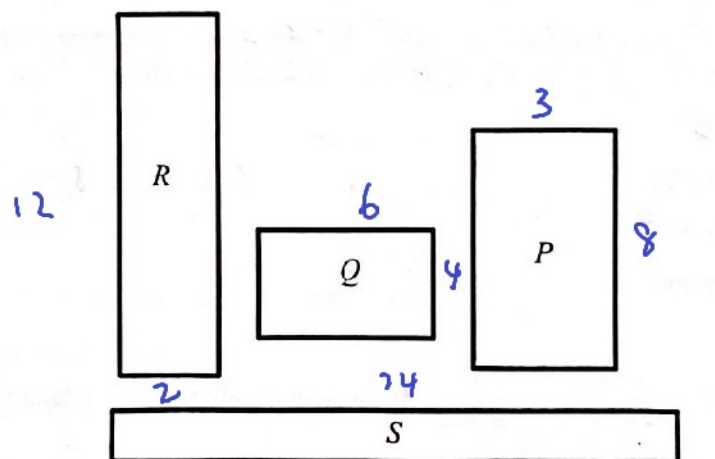
Kedai Moong has a stock of 4 000 notebooks and 8 000 pens. The store offers a combo set consisting of one notebook and two pens. The combo set is sold at a price of RM $(2j + 5k)$.

Express the total sales from the combo set in term of j and k , if all the sets are successfully sold.

- A $8000j + 20000k$
 B $8000j + 40000k$
 C $4000j + 10000k$
 D $4000j + 20000k$

$$4000(2j + 5k) = 8000j + 20000k$$

- 24 Rajah 10 menunjukkan segi empat tepat P , Q , R , dan S yang mempunyai luas yang sama iaitu 24 unit².
 T1
 B10 Diagram 10 below shows rectangles P , Q , R , and S that have the same area of 24 unit².



Rajah 10
 Diagram 10

Susun perimeter bagi segi empat tepat di atas mengikut tertib menurun.
 Arrange the perimeter of the rectangles above in descending order.

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

S R P Q

- 25 Jadual 1 menunjukkan masa larian yang diperolehi lapan orang peserta dalam satu pertandingan. Catatan masa disusun dalam tertib menaik.

Table 1 below shows the running time obtained by eight participants in a competition. The time records are arranged in ascending order.

Peserta Participants	H	I	J	K	L	M	N	P
Masa Times	8	x	14	18	20	24	y	30

Diberi bahawa julat antara kuartil dan min skor yang diperolehi masing-masing ialah 13 dan 18.75. Hitung nilai x dan nilai y .

Given that the interquartile range and the mean score obtained are 13 and 18.75 respectively.

Calculate the values of x and of y .

- A $x = 9, y = 25$
 B $x = 10, y = 26$
 C $x = 11, y = 27$
 D $x = 12, y = 28$

- 26 Pemilik sebuah restoran perlu membayar cukai perkhidmatan kepada kerajaan kerana nilai perkhidmatan bercukai yang disediakan restorannya melebihi nilai ambang RM1 500 000 setahun. Pihak manakah yang bertanggungjawab mengutip cukai ini?

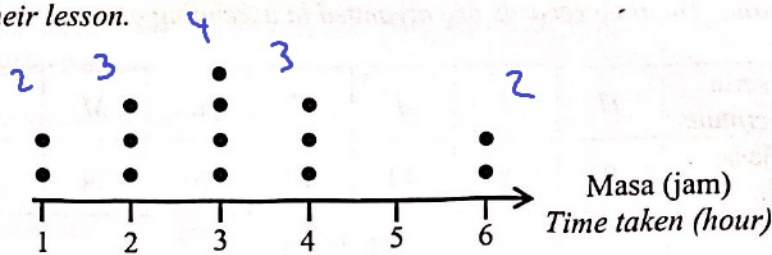
The owner of a restaurant is required to pay service tax to the government because the value of taxable services provided by his restaurant exceeds the threshold of RM1 500 000 per year.

Which entity is responsible for collecting sales and service tax?

- A Majlis Perbandaran
Municipal Council
 B Lembaga Hasil Dalam Negeri (LHDN)
Inland Revenue Board (IRB)
 C Pejabat Tanah dan Galian
State Land Office
 D Jabatan Kastam Diraja Malaysia (JKDM)
Royal Malaysian Customs Department (RMCD)

- 27 Rajah 11 menunjukkan plot titik bagi masa, dalam jam, yang diambil oleh sekumpulan murid untuk mengulangkaji pelajaran.

Diagram 11 shows the dot plot of the time taken, in hour, for a group of pupils to revise their lesson.



Rajah 11
Diagram 11

Hitung min masa.
Calculate mean time.

- A 8.8
B 7.33
C 3.14
D 2.33

$$\frac{2(1) + 3(2) + 4(3) + 3(4) + 2(6)}{2 + 3 + 4 + 3 + 2}$$

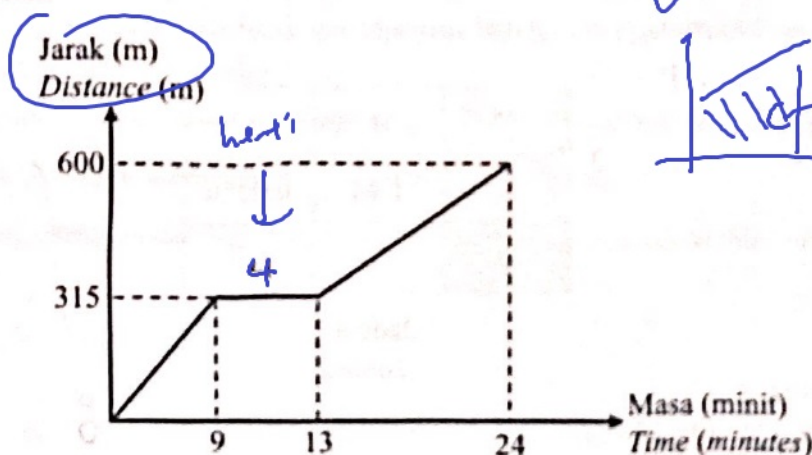
$$= \frac{44}{14} = 3.142$$

- 28 Antara situasi berikut yang manakah lokus dalam dua dimensi?
Which of the following situations are two-dimensional loci?

- I Pergerakan jarum jam.
Movement of the clock hands. ✓
- II Bola ping pong yang digoncang di dalam bekas silinder.
Ping pong balls are shaken in a cylindrical container. ✗
- III Pergerakan hujung pengelap cermin kereta yang sedang bergerak.
The movement of the tip of windshield wiper of a moving car. ✓
- IV Menyusun perabot di dalam bilik berdasarkan saiz perabot dan ruang yang tersedia.
Arranging furniture in a room based on the size of the furniture and available space.
- A I dan II
I and II
- B I dan III
I and III
- C II dan IV
II and IV
- D III dan IV
III and IV

- 29 Rajah 12 menunjukkan graf jarak-masa pergerakan Sarah dari rumahnya ke hospital. Diagram 12 shows distance-time graph of Sarah's movement from her house to the hospital.

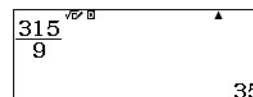
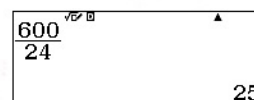
74
B7



Rajah 12
Diagram 12

Antara berikut, yang manakah pernyataan yang betul?
Which of the following statement is correct?

- A Laju puratanya dalam tempoh 24 minit itu ialah 50 m min^{-1} .
Her average speed in the period of 24 minutes is 50 m min^{-1} .
- B Sarah berhenti selama 13 minit dalam perjalanannya.
Sarah stopped for 13 minutes during her journey.
- C Jarak di antara rumahnya dan hospital itu ialah 315 m.
The distance between her house and the hospital is 315 m.
- ☒ D Sarah bergerak dengan laju 35 m min^{-1} dalam 9 minit pertama.
Sarah travelled with a speed of 35 m min^{-1} in the first 9 minutes.



- 30 Luas, L , sebuah taman berbentuk segi empat tepat berubah secara langsung dengan panjang, p . Ukuran lebar taman itu adalah tetap. Apabila luas taman ialah 120 m^2 , maka panjang ialah 15 m. Hitung luas taman, dalam m^2 , apabila panjang ialah 20 m.

75
B1

Area, L , of a rectangular garden varies directly with the length, p . The width of the garden is constant. When the area of the garden is 120 m^2 , the length is 15 m. Calculate the area of the garden, in m^2 , when the length is 20 m.

- A 200
B 180
☒ C 160
D 150

$L \propto p$
 $L = kp$

$L = 120, p = 15$
 $120 = k(15)$
 $k = \frac{120}{15} = 8$

$L = 8p, p = 20$
 $L = 8(20)$
 $= 160$

- 31 Jadual 2 menunjukkan perubahan tiga kuantiti, M , p dan q . Diberi M berubah secara langsung dengan punca kuasa dua p dan secara songsang dengan kuasa tiga q .
 Table 2 shows the changes in three quantities, M , p and q . It is given that M varies directly as the square root of p and varies inversely as the cube of q .

$M \propto \sqrt{p}$
 $M \propto \frac{1}{q^3}$
 $M \propto \frac{\sqrt{p}}{q^3}$

M	$= 4$	$M = x$
p	$= 1.44$	$p = 0.0256$
q	$= 3$	$q = 0.2$

Jadual 2
Table 2

$$M = \frac{k\sqrt{p}}{q^3}$$

$$4 = \frac{k\sqrt{1.44}}{3^3}$$

$$k = 90$$

Hitung nilai x .

Calculate the value of x .

- A 24
 B 72
 C 1 440
 D 1 800

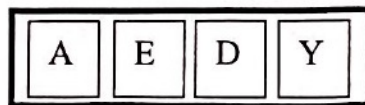
$$M = \frac{90\sqrt{p}}{q^3}$$

$$x = \frac{90\sqrt{0.0256}}{0.2^3}$$

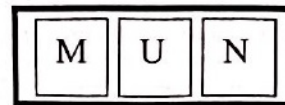
$$= 72$$

$\frac{90\sqrt{0.0256}}{0.2^3}$
72

- 32 Rajah 13 menunjukkan kotak P dan kotak Q yang berisi kad yang berlabel abjad.
 Diagram 13 shows box P and box Q contains cards labelled with letters.



Kotak P
Box P



Kotak Q
Box Q

Rajah 13
Diagram 13

Dua kad dipilih secara rawak satu persatu dari kotak P dan kotak Q .
 Nyatakan bilangan ruang sampel bagi peristiwa tersebut.

Two cards are chosen one by one from box P and box Q .
 State the number of sample space of the event.

- A 12
 B 10
 C 7
 D 3

A M
 A U
 A N
 E M
 E U
 E N
 D M
 D U
 D N
 Y M
 Y U
 Y N

- 33 Mai, Jaz dan Rin menyertai satu rombongan percutian. Kebarangkalian Mai, Jaz dan Rin memakai blaus ke rombongan ini masing-masing ialah $\frac{4}{9}$, $\frac{3}{10}$ dan $\frac{2}{5}$.
Hitung kebarangkalian dua orang daripada mereka memakai blaus untuk ke rombongan percutian ini.

Mai, Jaz and Rin joined a vacation trip. The probability of Mai, Jaz and Rin wearing blouse to this holiday trip is $\frac{4}{9}$, $\frac{3}{10}$ and $\frac{2}{5}$ respectively.

Calculate the probability, that two of them wearing blouses to this holiday trip.

A $\frac{4}{75}$

B $\frac{23}{30}$

C $\frac{61}{225}$

D $\frac{97}{225}$

$$MJR' + MJ'R + M'JR$$

$$= \frac{4}{9} \left(\frac{3}{10} \right) \left(\frac{3}{5} \right) + \frac{4}{9} \left(\frac{7}{10} \right) \left(\frac{2}{5} \right) + \frac{5}{9} \left(\frac{3}{10} \right) \left(\frac{2}{5} \right)$$

$$= \frac{36+56+30}{9 \times 10 \times 5} = \frac{61}{225}$$

34 $(7 \ -2 \ 5) - 2(-6 \ 4 \ -8) + 3(9 \ 5 \ -1) = (46 \ 5 \ 18)$

A $(46 \ 5 \ 18)$

B $(43 \ 9 \ -4)$

C $(32 \ 5 \ 12)$

D $(22 \ 9 \ 0)$

$$7 - 2 \times -6 + 3 \times 9 = 46$$

$$-2 - 2 \times 4 + 3 \times 5 = 5$$

$$5 - 2 \times -8 + 3 \times -1 = 18$$

- 35 Diberi $(2x \ -7) \begin{pmatrix} 3 & -5 \\ 0 & -4 \end{pmatrix} = (18 \ y+9)$.
Hitung nilai x dan nilai y .

Given $(2x \ -7) \begin{pmatrix} 3 & -5 \\ 0 & -4 \end{pmatrix} = (18 \ y+9)$.

Calculate the value of x and of y .

A $x=3, y=11$

B $x=3, y=-11$

C $x=9, y=9$

D $x=9, y=-19$

$$2x(3) + (-7)(0) = 18$$

$$6x = 18$$

$$x = 3$$

$$2(3)(-5) + (-7)(-4) = y + 9$$

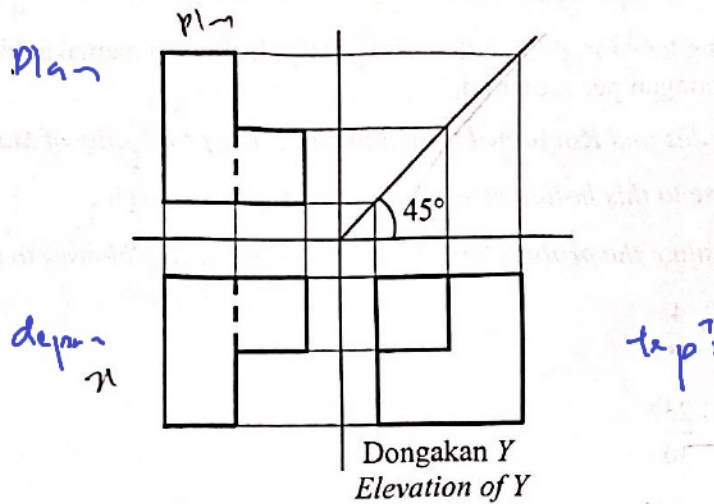
$$-30 + 28 - 9 = y$$

$$y = -11$$

36 Rajah 14 menunjukkan unjuran ortogon bagi suatu objek.

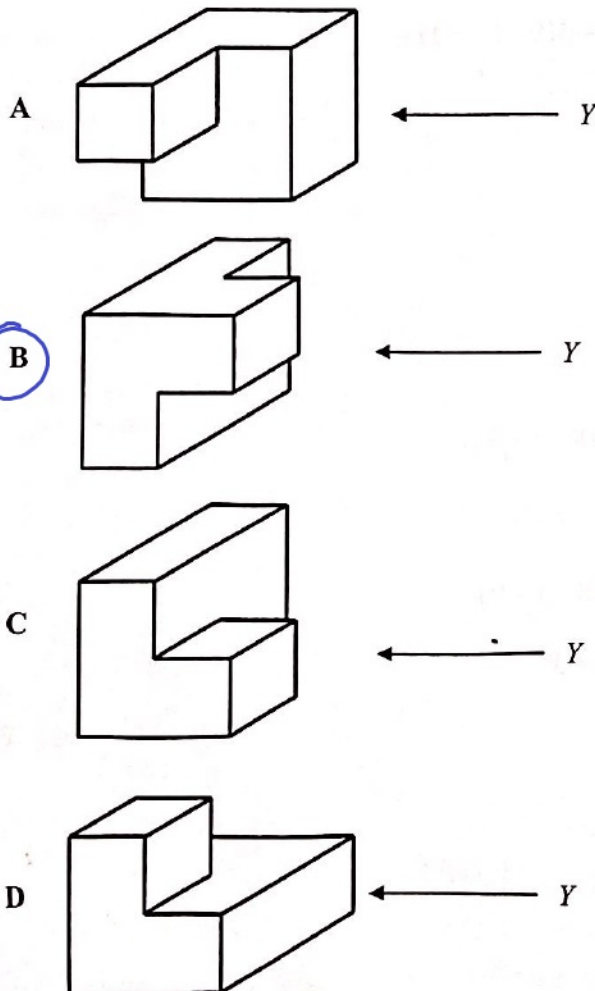
Diagram 14 shows the orthogonal projection of an object.

T3
B7



Rajah 14
Diagram 14

Antara berikut, yang manakah menunjukkan objek yang mungkin?
Which of the following shows the possible object?



- 37 Rajah 15 menunjukkan sebuah silo penyimpanan simen yang terbentuk dari gabungan bentuk sebuah silinder dan sebuah kon.

Diagram 15 shows a cement storage silo formed by combining the shape of a cylinder and a cone.

$$V_{\text{cyl}} = \pi r^2 h$$

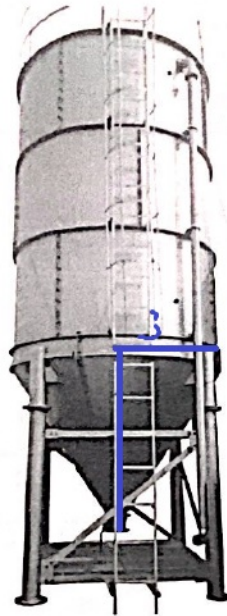
$$= \pi (j^2) (4j)$$

$$= 4\pi j^3$$

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

$$= \frac{1}{3} \pi (j^2) (2j)$$

$$= \frac{2}{3} \pi j^3$$



$$4 + \frac{2}{3}$$

$$\frac{14}{3}$$

$$4\pi j^3 + \frac{2}{3}\pi j^3 = 396$$

$$\frac{14\pi}{3} j^3 = 396$$

$$j^3 = \frac{396 \times 3 \times 7}{14 \times 22}$$

$$= 27$$

$$j = \sqrt[3]{27}$$

$$= 3$$

Rajah 15
Diagram 15

Diberi bahawa tinggi kon adalah sama dengan diameter silinder manakala tinggi silinder adalah empat kali jejari kon.

Tentukan jejari kon, dalam m, jika isi padu silo tersebut adalah 396 m^3 .

Given that the height of the cone is equal to the diameter of the cylinder while the height of the cylinder is four times the radius of the cone.

Determine the radius of the cone, in m, if the volume of the silo is 396 m^3 .

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

A 3

B 6

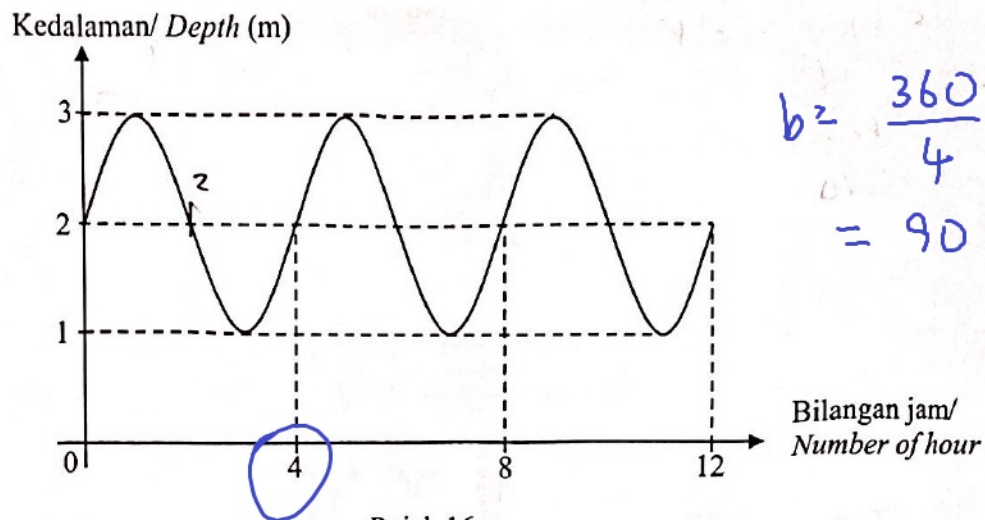
C 12

D 27

- 38 Rajah 16 menunjukkan kedalaman air dalam sebuah teluk. Diberi fungsi kedalaman air ialah $y = \sin bx + 2$.

TS Diagram 16 shows the depth of water in a bay. Given that the function of the water is $y = \sin bx + 2$.

36



Rajah 16
Diagram 16

Tentukan nilai b .
Determine the value of b .

- A 30
B 45
C 90
D 120

- 39 Encik Maslan mempunyai polisi insurans perubatan dengan deduktibel sebanyak RM2 500. Encik Maslan telah dimasukkan ke hospital untuk rawatan kemalangan dan dikenakan kos rawatan sebanyak RM2 300. Pada tahun yang sama, Encik Maslan perlu menjalani pembedahan katarak mata dan dikenakan kos rawatan sebanyak RM6 000. Hitung jumlah yang dibayar oleh syarikat insurans untuk tahun tersebut.

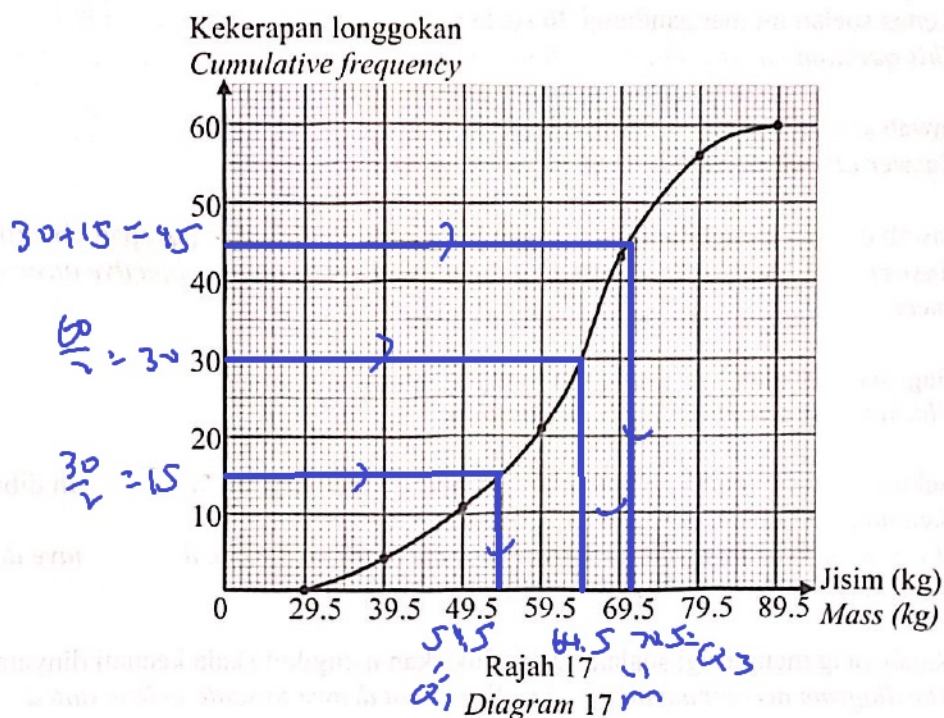
TS Encik Maslan has a medical insurance policy with a deductible of RM2 500. Encik Maslan was hospitalized for an accident and was charged a treatment cost of RM2 300. In the same year, Encik Maslan had to undergo cataract surgery and was charged a treatment cost of RM6 000.

Calculate the amount paid by the insurance company for that year.

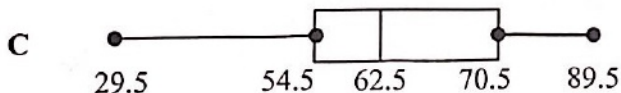
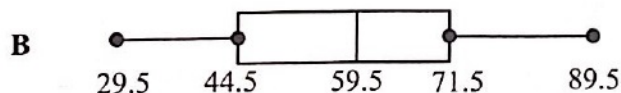
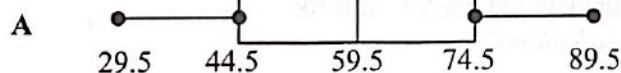
- A RM1 200
B RM3 500
C RM4 800
D RM5 800

- 40 Rajah 17 menunjukkan ogif bagi jisim, dalam kg, bagi 60 orang murid Tingkatan 5.
 Diagram 17 shows the ogive of mass, in kg, for 60 Form 5 students.

75
87



Antara berikut, yang manakah menunjukkan plot kotak yang mungkin?
 Which of the following is the possible box plot?



KERTAS SOALAN TAMAT
 END OF QUESTION PAPER