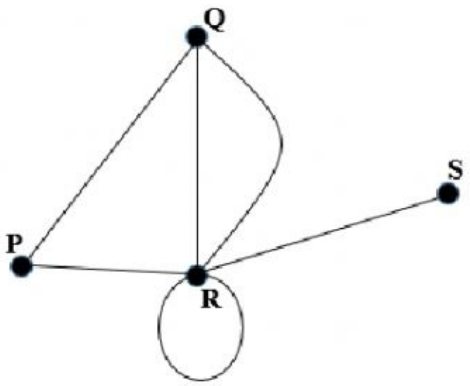
1 Rajah di bawah menunjukkan satu rangkaian.
The diagram below shows a network.



Hitung darjah bagi bucu R.
Calculate the degree of vertex R.

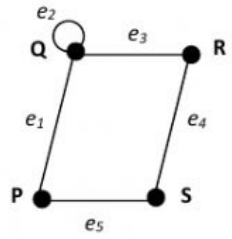
A 4

B 5

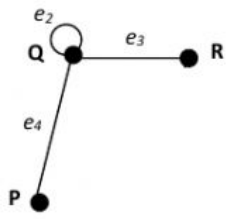
C 6

D 7

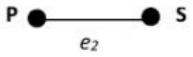
2 Antara yang berikut, manakah merupakan subgraf bagi Rajah di bawah?
Which of the following, is a subgraph of the diagram below.



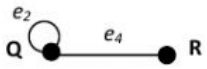
A



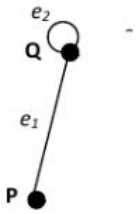
B



C

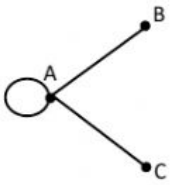


D

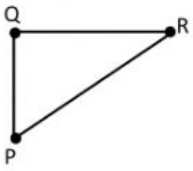


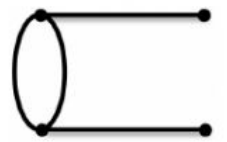
3 Antara berikut yang manakah adalah suatu pokok?
Which of the following is a tree?

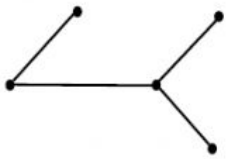
A



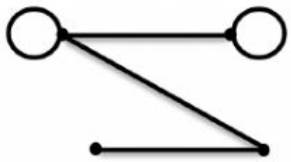
B

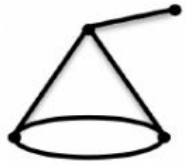


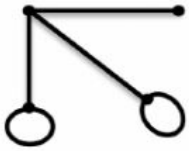
C 

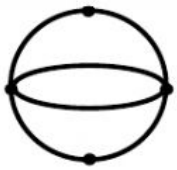
D 

4 Antara berikut yang manakah merupakan graf dengan empat bucu dan darjah 1, 2, 3 dan 4?
Which of the following is the graph with four vertices and degree 1, 2, 3 and 4?

A 

B 

C 

D 

5 Rangkaian ialah sejenis graf yang mengandungi sekurang-kurangnya _____ bucu yang berkait.
A network is a type of graph that contains at least _____ related vertices.

A 2

B 3

C 4

D 5

6 Jadual 6 menunjukkan min mata dan sisihan piawai yang diperoleh oleh Alvin, Markus, Shuib dan Tan dalam suatu pertandingan memanah.
Table 6 shows the mean points and standard deviation obtained by Alvin, Markus, Shuib and Tan in an archery competition.

	Min *Mean*	SisihanPiawai *Standard Deviation*
Alvin	8.4	2.62
Markus	8.4	2.64
Shuib	8.4	3.12
Tan	8.4	1.57

Jadua1 6
Table 6

Susun pemanah daripada yang paling konsisten kepada pemanah yang tidak konsisten.
Arrange archers from the most consistence to the least consistence.

A Shuib, Markus, Alvin, Tan

B Alvin, Markus, Shuib, Tan

C Markus, Tan, Shuib, Alvin

D Tan, Alvin, Markus, Shuib

7 Rajah 7 menunjukkan markah yang diperolehi oleh 12 orang murid 4 Alamanda untuk Ujian Matematik bagi bulan Mac.
Diagram 7 shows the mark obtained by 12 students of 4 Alamanda in the March Mathematics Test.

25	28	36	40
32	42	54	48
62	38	44	52

Rajah 7
Diagram 7

Hitung julat antara kuartil bagi markah yang diperolehi oleh pelajar-pelajar tersebut.
Calculate the interquartile range for the marks obtained by the students.

A 15

B 16

C 17

D 18

8 Jadual di bawah menunjukkan bilangan buku yang dibaca oleh 30 orang murid kelas tingkatan 4 Mirach.
The table below shows the number of books read by 30 students in class 4 Mirach.

Bilangan buku *Number of books*	0	1	2	3	4	5	6
Bilangan murid *Number of students.*	2	4	6	3	7	5	3

Tentukan sisihan piawai bagi bilangan buku yang dibaca oleh murid kelas berkenaan.
Determine the standard deviation for the number of books read by students in the class.

A 1.759

B 3.093

C 3.2

D 3.44

9 Berikut ialah satu set data.
The following is a set of data.

3 , 2 , 6, 9, 4, 2, 7, 2, 4

Cari julat
Find the range

A 8

B 7

C 6

D 4

10 Data di bawah menunjukkan taburan skor yang diperoleh 10 orang pelajar dalam satu ujian Matematik.
The data below shows the distribution of scores obtained by 10 students in a Mathematics test.

62, 70, 78, 50, 63, 40, 80, 72, 52, 62

Tentukan kuartil yang ketiga.
Determine the third quartile.

A 52

B 62

C 72

D 78

11 Jadual 11 menunjukkan perbelanjaan sebenar dan perbelanjaan yang dirancang oleh Amy.
Table 11 *shows the actual and planned monthly expenses for Amy..*

Perbelanjaan *Expenses*	Perbelanjaan bulanan sebenar *Actual monthly expenses (RM)*	Perbelanjaan bulanan yang dirancang *Planned monthly expenses (RM)*
Makanan *Food*	550	400
Sewa *Rental*	250	250
Yuran Gim *Gym fee*	100	100
Pengangkutan *Transportation*	250	200

Jadual 11
Table 11

Antara yang berikut yang manakah **tidak** benar tentang perbelanjaan Amy.
*Which of the following is **not** true about Amy's spending?*

A Amy tidak akan dapat memenuhi matlamat kewangannya berdasarkan pola perbelanjaan semasa.
Amy will not be able to meet his financial goal based on his current spending behaviour.

B Amy tidak menunjukkan perbelanjaan yang berhemah.
Amy did not show prudent expenses.

C Terdapat perbezaan RM300 dalam perbelanjaan bulanan sebenar Amy.
There is a difference of RM300 in Amy's monthly expenses.

D Pola perbelanjaan Amy membawa kepada aliran tunai negatif.
Amy spending lead to a negative cash flow.

12 $\left(\frac{m}{n}\right)^{-\frac{1}{3}}$

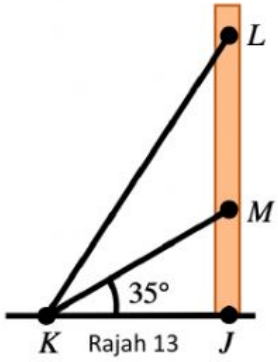
A $\sqrt[3]{\frac{m}{n}}$

B $\sqrt[3]{\frac{n}{m}}$

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

D $m\sqrt[3]{n}$

13 Dalam Rajah 13, dua gelung getah masing-masing diikat pada tiang tegak JML di M dan L dari K pada permukaan tanah.
In Diagram 13, two rubber bands are tied to a vertical pole JML at M and L respectively from K at the surface of earth.



Rajah 13
Diagram 13

Diberi bahawa ∠JKL = 70° dan JM = 21 cm, cari jarak antara L dan M.
Given that ∠JKL = 70° and JM = 21 cm, find the distance between L and M.

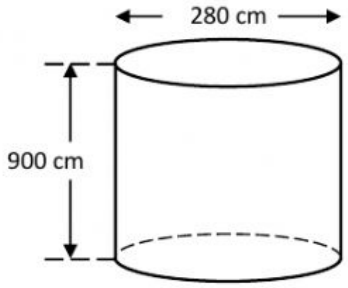
A 82.40 cm

B 52.41 cm

C 52.40 cm

D 45.40 cm

14 Rajah 14 menunjukkan sebuah silinder yang kosong dengan ketinggian 900 cm dan diameter 280 cm. Hanna memasukkan air ke dalam silinder itu sehingga penuh.
Diagram 14 shows an empty cylinder with the height is 900 cm and the diameter 280cm. Hanna fills up the cylinder full with water.



Rajah 14
Diagram 14

Hitungkan isipadu, dalam cm^3, air yang perlu dimasukkan ke dalam lima bekas silinder yang sama saiz.
Calculate the volume, in cm^3, *of water needed to fill up five cylinders of the same size.*
(Guna / *Use* $\pi = \frac{22}{7}$)

A 2.772×10^8

B 5.544×10^7

C 1.764×10^8

D 7.056×10^7

15 Antara berikut yang manakah pelaburan yang bebas risiko?
Which of following is a free risk investment?

A Saham Syarikat
Company shares

B Hartanah
Real estate

C Unit Amanah
Unit Trust

D Simpanan Tetap
Fixed Deposit