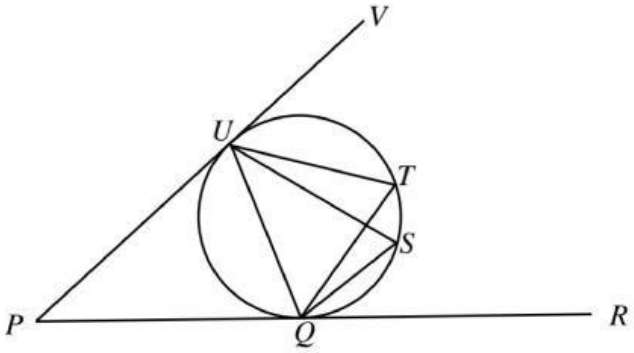
24 Rajah 10 menunjukkan *PUV* dan *PQR* ialah tangen kepada bulatan *QSTU*.
Diagram 10 *shows PUV and PQR are tangents to the circle QSTU.*



Rajah 10
Diagram 10

$\angle SQR$ sama dengan
$\angle SQR$ *is equal to*

A $\angle PQU$

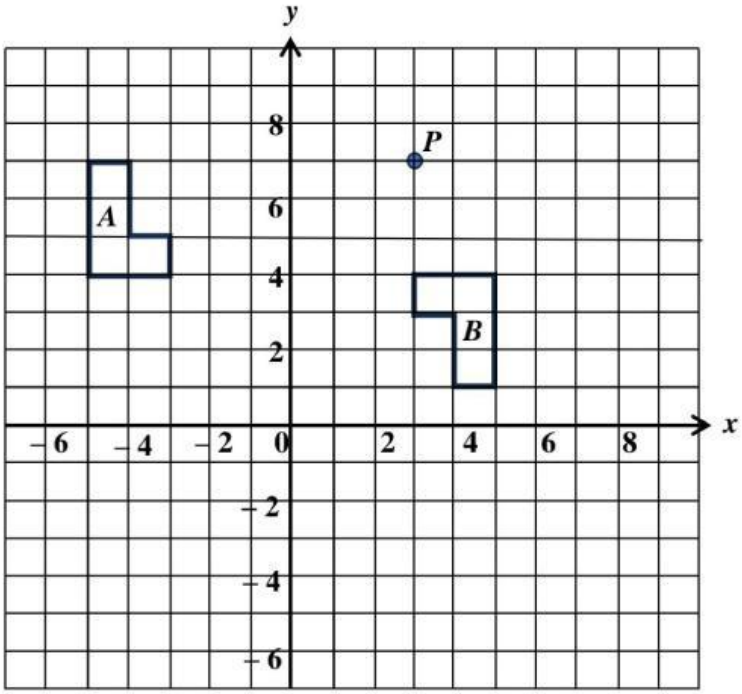
B $\angle QUS$

C $\angle SQU$

D $\angle UTQ$

LIVEWORKSHEETS

25 Rajah 11 menunjukkan dua poligon, *A* dan *B* dilukis pada suatu satah Cartes.
Diagram 11 *shows two polygons, A and B drawn on a Cartesian plane.*



Rajah 11
Diagram 11

A ialah imej bagi *B* di bawah suatu transformasi. Cari koordinat bagi imej titik *P* di bawah transformasi yang sama.
A is the image of B under a transformation. Find the coordinate of the image of point P under the same transformation.

A (–3, 1)

B (–3, 7)

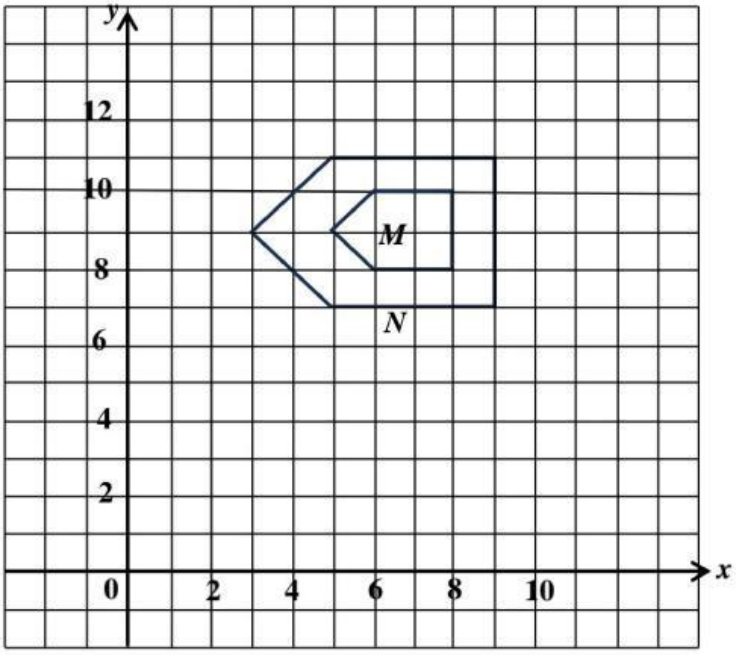
C (1, –3)

D (7, –3)

LIVEWORKSHEETS

26 Rajah 12 menunjukkan dua pentagon, *M* dan *N*, dilukis pada suatu satah Cartes. *M* ialah imej bagi *N* di bawah suatu pembesaran.

Diagram 12 *shows two pentagons, M and N, drawn on a Cartesian plane. M is the image of N under an enlargement.*



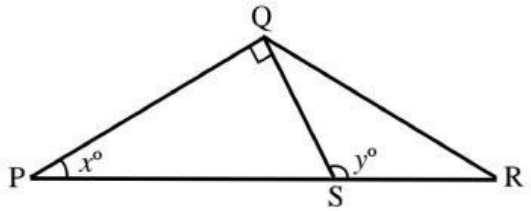
Rajah 12
Diagram 12

Cari faktor skala dan pusat pembesaran itu.
Find the scale factor and the centre of the enlargement.

	Faktor skala *Scale factor*	Pusat pembesaran *Centre of enlargement*
A	2	$(7,9)$
B	$\frac{1}{2}$	$(7,9)$
C	2	$(9,7)$
D	$\frac{1}{2}$	$(9,7)$

LIVEWORKSHEETS

27 Rajah 13 menunjukkan dua segi tiga, *PQS* dan *QRS*.
Diagram 13 *shows two triangles, PQS and QRS.*



Rajah 13
Diagram 13

Diberi $SR = 8$ cm, $PQ = 16$ cm dan $5SR = 2PS$. Cari nilai kos x^o + tan y^o.
Given $SR = 8$ cm, $PQ = 16$ cm *and* $5SR = 2PS$. *Find the value of cos* $x°$ + *tan* $y°$.

A $-\frac{32}{15}$

B $-\frac{8}{15}$

C $\frac{8}{15}$

D $\frac{32}{15}$

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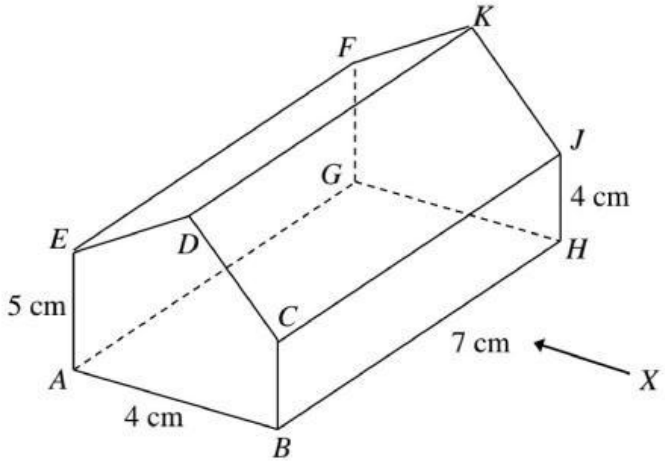
LIVEWORKSHEETS

28 Rajah 14 menunjukkan sebuah pepejal di atas permukaan mengufuk. Garis *DK* berada 6 cm tegak di atas tapak *ABHG*.
Diagram 14 *shows a solid lies on a horizontal plane. The line DK lies* 6 *cm vertically above the base ABHG.*

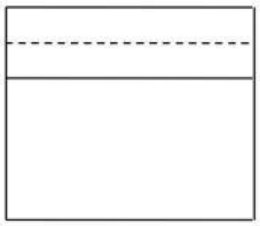


Rajah 14
Diagram 14

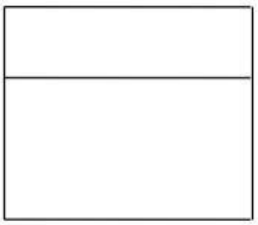
Antara berikut, yang manakah menunjukkan unjuran ortogon pepejal itu pada satah mencancang yang selari dengan *BH* sebagaimana dilihat dari *X?*

Which of the following is the orthogonal projection of the solid on the vertical plane parallel to BH as viewed from X?

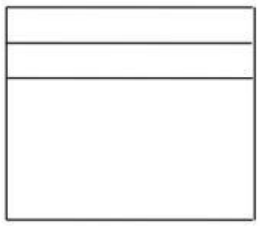
A



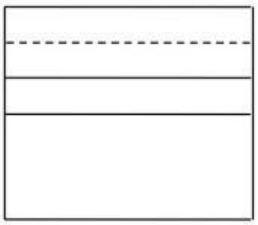
B



C



D



LIVEWORKSHEETS

29 Antara yang berikut, yang manakah penyataan majmuk yang palsu?
Which of the following is a false compound statements?

A $2^3 = 6$ atau $(-3)^2 = 9$
$2^3 = 6$ *or* $(-3)^2 = 9$

B $\{5\} \subset \{2, 5, 7\}$ atau $12 \notin \{\text{Gandaan bagi } 3\}$
$\{5\} \subset \{2, 5, 7\}$ *or* $12 \notin \{\textit{Multiple of } 3\}$

C $3x + 7x = 10x$ dan 4 ialah faktor bagi 114
$3x + 7x = 10x$ *and* 4 *is a factor of* 114

D 216 ialah nombor kuasa tiga sempurna dan $(x - y)(x + y) = x^2 - y^2$
216 *is a perfect cube number and* $(x - y)(x + y) = x^2 - y^2$

30 Rajah 15 menunjukkan suatu implikasi.
Diagram 15 *shows an implication.*

Jika p ialah nombor genap, maka p boleh dibahagi tepat dengan 2. *If p is an even number, then p is divisible by* 2.

Rajah 15
Diagram 15

Antara berikut yang manakah songsangan bagi implikasi tersebut?
Which of the following is the inverse of the implication?

A Jika p boleh dibahagi tepat dengan 2, maka p ialah nombor genap.
If p is divisible by 2, *then p is an even number*.

B Jika p bukan nombor genap, maka p boleh dibahagi tepat dengan 2.
If p is not an even number, then p is divisible by 2.

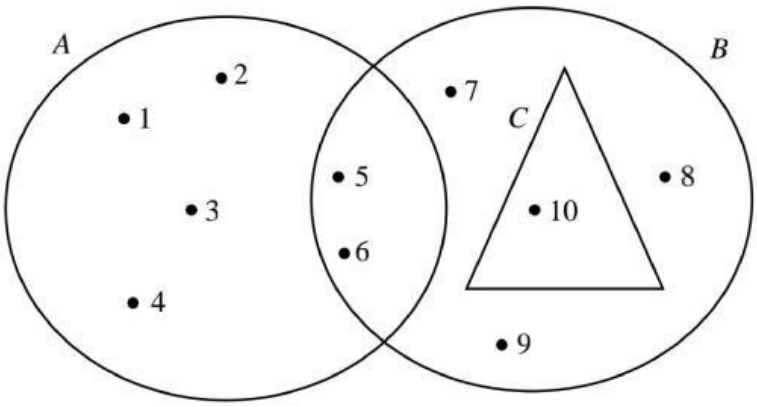
C Jika p bukan nombor genap, maka p tidak boleh dibahagi tepat dengan 2.
If p is not an even number, then p is not divisible by 2.

D Jika p tidak boleh dibahagi tepat dengan 2, maka p bukan nombor genap.
If p is not divisible by 2, *then p is not an even number*.

LIVEWORKSHEETS

31 Rajah 16 ialah gambar rajah Venn dengan set semesta, $\xi = A \cup B \cup C$.

Diagram 16 *is a Venn diagram with the universal set,* $\xi = A \cup B \cup C$.



Rajah 16
Diagram 16

Senaraikan semua unsur bagi set $B \cap C'$.
List all the elements of the set $B \cap C'$.

A { 5, 6, 10 }

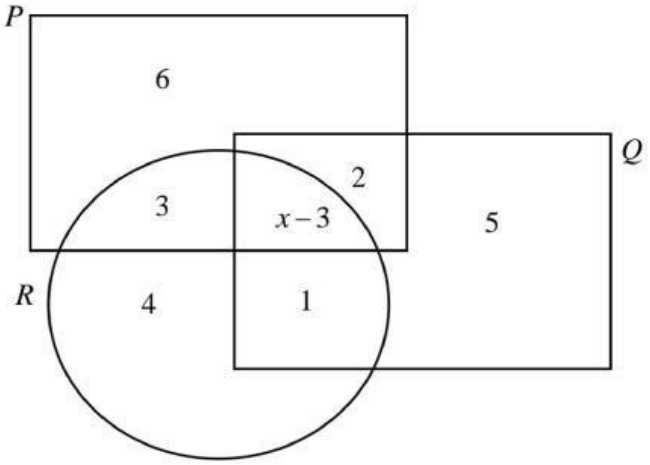
B { 5, 6, 7, 8, 9 }

C { 1, 2, 3, 4, 5, 6 }

D { 1, 2, 3, 4, 7, 8, 9 }

LIVEWORKSHEETS

32 Gambar rajah Venn menunjukkan bilangan unsur bagi set P, set Q dan set R.
The Venn diagram shows the number of the elements of set P, set Q and set R.



Diberi bahawa set semesta $\xi = P \cup Q \cup R$ dan $n(P') = n(R \cap Q)$. Cari nilai x.
It is given that the universal set, $\xi = P \cup Q \cup R$ *and* $n(P') = n(R \cap Q)$. *Find the value of x.*

A 8

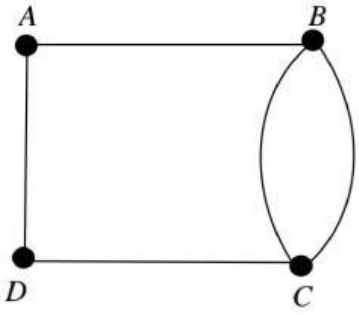
B 11

C 12

D 14

LIVEWORKSHEETS

33 Rajah 17 menunjukkan suatu graf.
Diagram 17 *shows a graph.*



Rajah 17
Diagram 17

Nyatakan bilangan darjah bagi graf tersebut.
State the number of degrees for the graph.

A 7

B 8

C 9

D 10

34 Jadual 4 menunjukkan wang saku yang dibelanjakan oleh sekumpulan murid di sekolah.
Table 4 *show the pocket money spend by a group of students at school.*

Wang saku *Pocket money*	Kekerapan *Frequency*
RM 3	13
RM 5	15
RM 7	10
RM 10	3

Jadual 4
Table 4

Apakah mod bagi data itu?
What is the mode of the data?

A RM 10

B RM 5

C 15

D 13

[Lihat halaman sebelah

LIVEWORKSHEETS

35 Rajah 18 menunjukkan satu set data.
Diagram 18 *shows a set of data.*

$m_1, m_2, m_3, m_4, m_5, m_6$

Rajah 18
Diagram 18

Diberi min bagi set data itu ialah 12.4. Jika nilai setiap data dibahagi dengan dua, hitung nilai min baharu bagi data tersebut.
Given that the min for the dataset is 12.4, *If the value of each data is divided by two, calculate a new min value for that data.*

A 6.2

B 10.4

C 14.4

D 24.4

36 Rajah 19 menunjukkan beberapa keping kad nombor.
Diagram 19 *shows several pieces of number cards.*

2	**9**	**13**	**15**	**21**	**27**

Rajah 19
Diagram 19

Sekeping kad dipilih secara rawak. Nyatakan kebarangkalian bahawa kad yang dipilih ialah kad nombor perdana.
A card is chosen at random. State the probability that the selected card is a prime number card.

A $\frac{1}{6}$

B $\frac{1}{3}$

C $\frac{1}{2}$

D $\frac{5}{6}$

[Lihat halaman sebelah

LIVEWORKSHEETS

37 Sebanyak 15% biji buah jambu daripada empat kotak jambu didapati telah busuk. *A* ialah peristiwa memperolehi buah jambu tidak busuk. Jika sebuah kotak jambu mengandungi 25 biji buah jambu, hitung kebarangkalian mengambil satu biji jambu yang tidak busuk secara rawak ?

A total of 15% *of guava seeds from four boxes of guava were found to be rotten. A is the event of obtaining unrotten guava fruit. If a box of guavas contains* 25 *guavas, calculate the probability of picking one unrotten guava at random ?*

A $\frac{2}{5}$

B $\frac{3}{5}$

C $\frac{3}{20}$

D $\frac{17}{20}$

38 Puan Dalina mempunyai rumah di Taman Anggerik. Anggaran sewa rumahnya ialah RM850 sebulan. Diberi kadar cukai pintu ialah 3%. Hitung cukai pintu yang perlu dibayar olehnya untuk setiap setengah tahun.

Puan Dalina has a house in Taman Anggerik. The estimation of rental of her house is RM850 *per month. Given the property assessment tax rate is* 3%. *Calculate the property assessment tax payable by her for each half-year.*

A RM 12.75

B RM 25.50

C RM 153.00

D RM 306.00

LIVEWORKSHEETS

39 Jadual 4 menunjukkan pencapaian bagi empat kelas dalam satu ujian Matematik.
Table 4 *shows the achievement of four classes in a Mathematics test.*

Kelas *Class*	Min markah *Mean mark*	Sisihan piawai *Standard deviation*
5M	92	5
5N	86	2
5R	88	4
5T	75	3

Jadual 4
Table 4

Berdasarkan data di atas, kelas manakah yang menunjukkan pencapaian paling konsisten dalam ujian itu?
Based on the above data, which class shows the most consistent achievement in the test?

A 5M

B 5N

C 5R

D 5T

40 Diberi bahawa satu set 60 data mempunyai $\sum fx^2 = 120100$ dan min 36, hitung sisihan piawai bagi data tersebut.
Given that a set of 60 data has $\sum fx^2 = 120100$ *and a mean* 36, *calculate the standard deviation for the set of data.*

A 2001.67

B 1965.67

C 705.67

D 26.56

KERTAS SOALAN TAMAT

[Lihat halaman sebelah

LIVEWORKSHEETS

MAKLUMAT UNTUK CALON
INFORMATION FOR CANDIDATES

1. Kertas peperiksaan ini mengandungi **40** soalan.

   This question paper consists of **40** *questions.*

2. Jawab **semua** soalan.

   Answer ***all*** *questions.*

3. Jawab semua soalan dengan menghitamkan ruangan yang betul pada kertas jawapan objektif.

   Answer each question by blackening the correct space on the objective answer sheet.

4. Hitamkan **satu** ruangan sahaja bagi setiap soalan.

   Blacken only ***one*** *space for each question.*

5. Sekiranya anda hendak menukar jawapan, padamkan tanda yang telah dibuat. Kemudian hitamkan jawapan yang baharu.

   If you wish to change your answer, erase the blackened mark that you have done.

   Then blacken the space for the new answer.

6. Rajah yang mengiringi soalan tidak dilukis mengikut skala kecuali dinyatakan.

   The diagrams in the questions provided are not drawn to scale unless stated.

7. Satu senarai rumus disediakan di halaman 2 hingga 4.

   A list of formulae is provided on pages 2 *to* 4.

8. Anda dibenarkan menggunakan kalkulator saintifik.

   You may use a scientific calculator.

[Lihat halaman sebelah

LIVEWORKSHEETS