

Nama:

Kelas:

SULIT

3472/1

Matematik

Tambahan

Kertas 1

Ogos

2026

2 jam



3472/1

MAKTAB RENDAH SAINS MARA

**PEPERIKSAAN AKHIR
SIJIL PENDIDIKAN MRSM 2026**

MATEMATIK TAMBAHAN

Kertas 1

Dua jam

JANGAN BUKA KERTAS PEPERIKSAAN INI SEHINGGA DIBERITAHU

1. *Tulis nama dan kelas anda pada ruang yang disediakan.*
2. *Kertas peperiksaan ini adalah dalam dwibahasa.*
3. *Soalan dalam bahasa Melayu mendahului soalan yang sepadan dalam bahasa Inggeris.*
4. *Calon dibenarkan menjawab keseluruhan atau sebahagian soalan sama ada dalam bahasa Melayu atau bahasa Inggeris.*
5. *Calon dikehendaki membaca maklumat di halaman belakang kertas peperiksaan ini.*

Bahagian	Soalan	Markah Penuh	Markah Diperoleh
A	1	2	
	2	3	
	3	7	
	4	2	
	5	3	
	6	6	
	7	6	
	8	5	
	9	9	
	10	6	
	11	7	
	12	8	
B	13	8	
	14	8	
	15	8	
Jumlah		80	

Kertas peperiksaan ini mengandungi **32** halaman bercetak

[Lihat halaman sebelah

SULIT

Rumus-rumus berikut boleh membantu anda menjawab soalan. Simbol-simbol yang diberi adalah yang biasa digunakan.

The following formulae may be helpful in answering the questions. The symbols given are the ones commonly used.

$$1. \quad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$2. \quad a^m \times a^n = a^{m+n}$$

$$3. \quad a^m \div a^n = a^{m-n}$$

$$4. \quad (a^m)^n = a^{mn}$$

$$5. \quad \log_a mn = \log_a m + \log_a n$$

$$6. \quad \log_a \left(\frac{m}{n} \right) = \log_a m - \log_a n$$

$$7. \quad \log_a m^n = n \log_a m$$

$$8. \quad \log_a b = \frac{\log_c b}{\log_c a}$$

$$9. \quad T_n = a + (n-1)d$$

$$10. \quad S_n = \frac{n}{2} [2a + (n-1)d]$$

$$11. \quad T_n = ar^{n-1}$$

$$12. \quad S_n = \frac{a(r^n - 1)}{r - 1} = \frac{a(1 - r^n)}{1 - r}, \quad r \neq 1$$

$$13. \quad S_\infty = \frac{a}{1 - r}, \quad |r| < 1$$

$$14. \quad y = uv, \quad \frac{dy}{dx} = u \frac{dv}{dx} + v \frac{du}{dx}$$

$$15. \quad y = \frac{u}{v}, \quad \frac{dy}{dx} = \frac{v \frac{du}{dx} - u \frac{dv}{dx}}{v^2}$$

$$16. \quad \frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$$

$$17. \quad \text{Luas di bawah lengkung}$$

Area under a curve

$$= \int_a^b y \, dx \quad \text{atau (or)}$$

$$= \int_a^b x \, dy$$

$$18. \quad \text{Isipadu janaan}$$

Volume generated

$$= \int_a^b \pi y^2 \, dx \quad \text{atau (or)}$$

$$= \int_a^b \pi x^2 \, dy$$

$$19. \quad I = \frac{Q_1}{Q_0} \times 100$$

$$20. \quad \bar{I} = \frac{\sum W_i I_i}{\sum W_i}$$

$$21. \quad {}^n P_r = \frac{n!}{(n-r)!}$$

$$22. \quad {}^n C_r = \frac{n!}{(n-r)! r!}$$

$$23. \quad P(X=r) = {}^n C_r p^r q^{n-r}, \quad p+q=1$$

$$24. \quad \text{Min / Mean, } \mu = np$$

$$25. \quad \sigma = \sqrt{npq}$$

$$26. \quad Z = \frac{X - \mu}{\sigma}$$

$$27. \quad \text{Panjang lengkok, } s = r\theta$$

Arc length, } s = r\theta

$$28. \quad \text{Luas sektor, } L = \frac{1}{2} r^2 \theta$$

$$\text{Area of sector, } A = \frac{1}{2} r^2 \theta$$

$$29. \quad \sin^2 A + \cos^2 A = 1$$

$$\sin^2 A + \cos^2 A = 1$$

$$30. \quad \sec^2 A = 1 + \tan^2 A$$

$$\sec^2 A = 1 + \tan^2 A$$

$$31. \quad \text{kosek}^2 A = 1 + \text{kot}^2 A$$

$$\text{cosec}^2 A = 1 + \cot^2 A$$

32. $\sin 2A = 2 \sin A \cos A$
 $\sin 2A = 2 \sin A \cos A$
33. $\cos 2A = \cos^2 A - \sin^2 A$
 $= 2 \cos^2 A - 1$
 $= 1 - 2 \sin^2 A$
 $\cos 2A = \cos^2 A - \sin^2 A$
 $= 2 \cos^2 A - 1$
 $= 1 - 2 \sin^2 A$
34. $\tan 2A = \frac{2 \tan A}{1 - \tan^2 A}$
35. $\sin (A \pm B) = \sin A \cos B \pm \cos A \sin B$
 $\sin (A \pm B) = \sin A \cos B \pm \cos A \sin B$
36. $\cos (A \pm B) = \cos A \cos B \mp \sin A \sin B$
 $\cos (A \pm B) = \cos A \cos B \mp \sin A \sin B$
37. $\tan (A \pm B) = \frac{\tan A \pm \tan B}{1 \mp \tan A \tan B}$
38. $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$
39. $a^2 = b^2 + c^2 - 2bc \cos A$
 $a^2 = b^2 + c^2 - 2bc \cos A$
40. Luas segi tiga / *Area of triangle*
 $= \frac{1}{2} ab \sin C$
41. Titik yang membahagi suatu tembereng garis
A point dividing a segment of a line
 $(x, y) = \left(\frac{nx_1 + mx_2}{m + n}, \frac{ny_1 + my_2}{m + n} \right)$
42. Luas segi tiga / *Area of triangle*
 $= \frac{1}{2} |(x_1 y_2 + x_2 y_3 + x_3 y_1) - (x_2 y_1 + x_3 y_2 + x_1 y_3)|$
43. $|r| = \sqrt{x^2 + y^2}$
44. $\hat{r} = \frac{xi + yj}{\sqrt{x^2 + y^2}}$

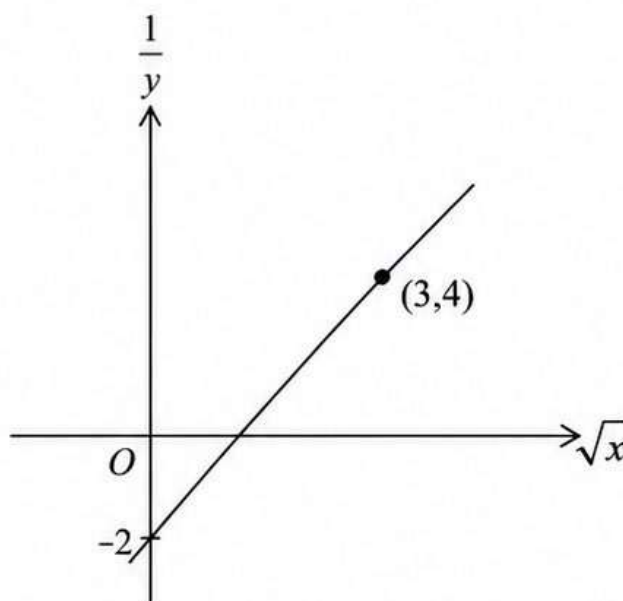
Bahagian A

[64 markah]

Jawab semua soalan.

- 1 Rajah 1 menunjukkan graf garis lurus $\frac{1}{y}$ melawan $\sqrt{x}$.

Diagram 1 shows the graph of the straight line $\frac{1}{y}$ against $\sqrt{x}$.



Rajah 1
Diagram 1

Ungkapkan $\frac{1}{y}$ dalam sebutan $\sqrt{x}$.

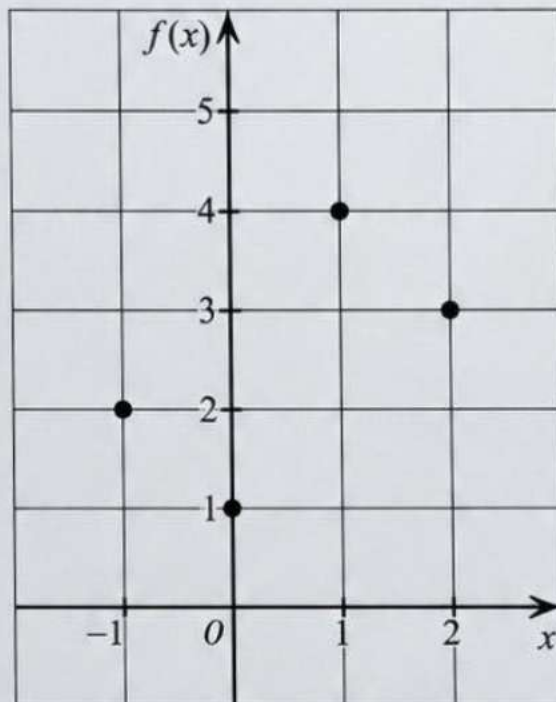
[2 markah]

Express $\frac{1}{y}$ in terms of $\sqrt{x}$.

[2 marks]

Jawapan / Answer:

- 2 Rajah 2 menunjukkan suatu fungsi $f(x)$.
Diagram 2 shows function $f(x)$.

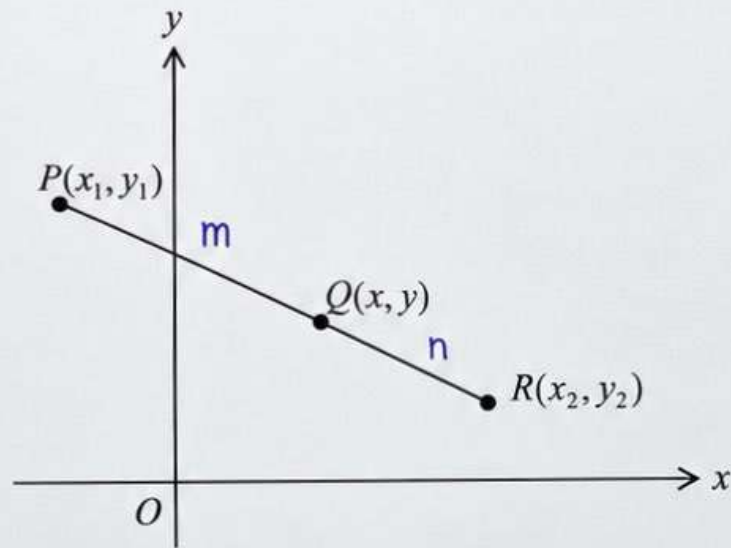


Rajah 2
Diagram 2

Nyatakan
State

- | | | |
|-----|---|------------------------|
| (a) | imej bagi 2,
<i>image of 2,</i> | [1 markah]
[1 mark] |
| (b) | julat,
<i>the range,</i> | [1 markah]
[1 mark] |
| (c) | jenis fungsi.
<i>the type of function.</i> | [1 markah]
[1 mark] |

- 3 (a) Rajah 3 menunjukkan suatu tembereng garis PR .
Diagram 3 shows a line segment PR .



Rajah 3
Diagram 3

Diberi bahawa titik Q membahagi tembereng garis PR dalam nisbah $m : n$.
It is given that point Q divides the line segment PR in the ratio of $m : n$.

- (i) Tunjukkan bahawa $x = \frac{nx_1 + mx_2}{m + n}$.

Show that $x = \frac{nx_1 + mx_2}{m + n}$.

- (ii) Jika Q adalah titik tengah bagi PR , nyatakan nisbah bagi $m : n$.
If Q is the midpoint of PR , state the ratio of $m : n$.

[3 markah]

[3 marks]

Jawapan / Answer:

(b) Diberi bahawa $(2 - h)\underline{a} + (k - 5)\underline{b} = 0$, dengan keadaan h dan k ialah pemalar.

It is given that $(2 - h)\underline{a} + (k - 5)\underline{b} = 0$, such that h and k are constants.

(i) Nyatakan dua ciri vektor sifar.

State two characteristics of zero vector.

(ii) Jika vektor $\underline{a}$ dan vektor $\underline{b}$ adalah bukan sifar dan tidak selari, cari nilai h dan nilai k .

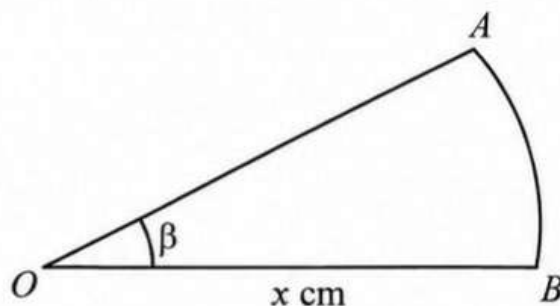
If vector $\underline{a}$ and vector $\underline{b}$ are non-zero and non-parallel, find the value of h and of k .

[4 markah]

[4 marks]

Jawapan / Answer:

- 4 Rajah 4 menunjukkan sebuah sektor AOB berpusat O .
Diagram 4 shows a sector AOB with centre O .



Rajah 4
Diagram 4

Diberi bahawa perimeter bagi sektor AOB ialah 7 cm.
Ungkapkan β dalam sebutan x .

[2 markah]

*It is given that the perimeter of sector AOB is 7 cm.
Express β in terms of x .*

[2 marks]

Jawapan / Answer:

- 5 Air di dalam sebuah bekas dibiarkan menyejuk dengan keadaan suhu air, S °C selepas t minit diwakili oleh persamaan $S = 33 + 52(0.83)^t$.

The water in a container is left to cool such that the water temperature, S °C after t minutes is represented by the equation $S = 33 + 52(0.83)^t$.

Cari

Find

- (a) suhu awal air, dalam °C, [1 markah]
the initial temperature of the water, in °C, [1 mark]
- (b) masa, dalam minit, apabila suhu air ialah 61 °C. [2 markah]
the time, in minutes, when the temperature of the water is 61 °C. [2 marks]

Jawapan / Answer:

[Lihat halaman sebelah

- 6 Rajah 6 menunjukkan resit jumlah bayaran yang dikenakan kepada tiga buah keluarga untuk memasuki sebuah taman tema.

Diagram 6 shows receipt total fees charged to three families for entering a theme park.

 Resit <i>Receipt</i> Taman Tema <i>Theme Park</i> 20 April 2026 Dewasa x 4 <i>Adult</i> Kanak-kanak x 5 <i>Child</i> Warga Emas x 1 <i>Senior Citizen</i> RM 400.00 Terima kasih & Datang lagi <i>Thank you & Come again</i>	 Resit <i>Receipt</i> Taman Tema <i>Theme Park</i> 20 April 2026 Dewasa x 2 <i>Adult</i> Kanak-kanak x 3 <i>Child</i> Warga Emas x 4 <i>Senior Citizen</i> RM 324.00 Terima kasih & Datang lagi <i>Thank you & Come again</i>	 Resit <i>Receipt</i> Taman Tema <i>Theme Park</i> 20 April 2026 Dewasa x 3 <i>Adult</i> Kanak-kanak x 1 <i>Child</i> Warga Emas x 2 <i>Senior Citizen</i> RM 233.00 Terima kasih & Datang lagi <i>Thank you & Come again</i>
---	---	---

Rajah 6
Diagram 6

Cari bayaran masuk bagi setiap seorang dewasa, kanak-kanak dan warga emas.

Find the entrance fee for each adult, child and senior citizen.

[6 markah]

[6 marks]

Jawapan / Answer:

- 7 (a) (i) Tunjukkan bahawa jujukan $h, h^2 + 2h, h(h + 2)^2, \dots$ ialah suatu jangjang geometri.
Show that the sequence $h, h^2 + 2h, h(h + 2)^2, \dots$ is a geometric progression.
- (ii) Seterusnya, ungkapkan T_6 dalam sebutan h .
Hence, express T_6 in terms of h .

[3 markah]

[3 marks]

Jawapan / Answer:

- (b) Diberi bahawa suatu panjang aritmetik mempunyai 15 sebutan dengan sebutan pertama, a dan beza sepunya, d .

Jika sebutan pertama dan terakhir dikeluarkan, hasil tambah baki sebutan ialah separuh daripada hasil tambah panjang asal.

Cari a dalam sebutan d .

[3 markah]

It is given that an arithmetic progression has 15 terms with the first term, a and common difference, d .

If the first and the last term is removed, the sum of the remaining terms is half of the sum of the original progression.

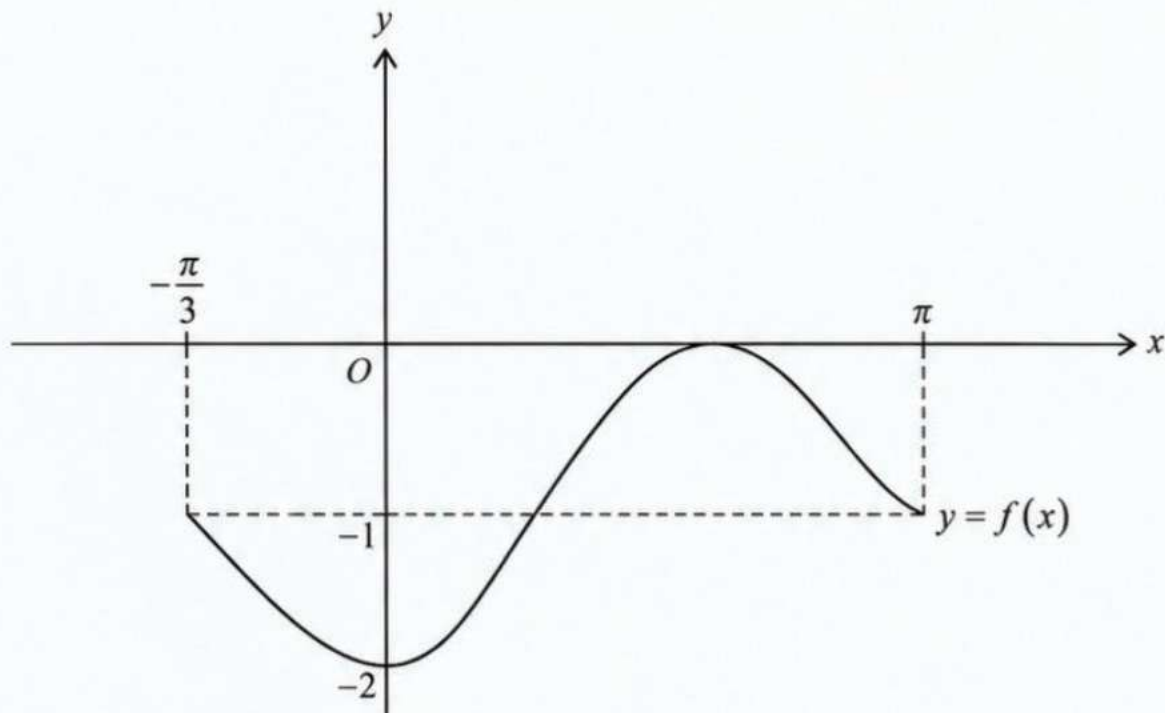
Find a in terms of d .

[3 marks]

Jawapan / Answer:

- 8 Rajah 8 menunjukkan graf fungsi trigonometri bagi domain $-\frac{\pi}{3} \leq x \leq \pi$.

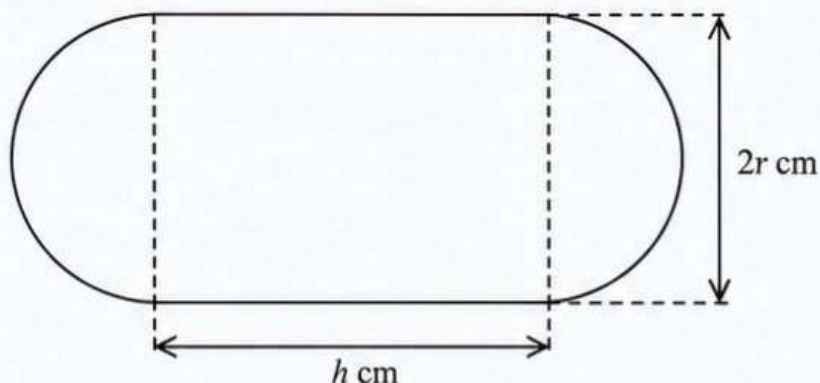
Diagram 8 shows a trigonometric function graph for domain $-\frac{\pi}{3} \leq x \leq \pi$.



Rajah 8
Diagram 8

- (a) Nyatakan fungsi trigonometri bagi graf $f(x)$. [2 markah]
State the trigonometric function of graph $f(x)$. [2 marks]
- (b) Diberi bahawa graf $g(x)$ adalah pantulan graf $f(x)$ pada garis keseimbangannya.
Pada Rajah 8, lakarkan graf $g(x)$ untuk $-\frac{\pi}{3} \leq x \leq \pi$. [1 markah]
It is given that graph $g(x)$ is the reflection of graph $f(x)$ at its equilibrium line.
On Diagram 8, sketch the graph of $g(x)$ for $-\frac{\pi}{3} \leq x \leq \pi$. [1 mark]
- (c) Seterusnya, nyatakan penyelesaian bagi $f(x) = g(x)$. [2 markah]
Hence, state the solutions of $f(x) = g(x)$. [2 marks]

- 9 Rajah 9 menunjukkan gabungan dua semibulatan dan satu segi empat tepat.
Diagram 9 shows combination of two semicircles and a rectangle.



Rajah 9
 Diagram 9

Diberi bahawa perimeter bentuk tersebut ialah 30 cm.

It is given the perimeter of the shape is 30 cm.

[Guna / Use $\pi = 3.142$]

- (a) Tunjukkan bahawa luas, $L \text{ cm}^2$, bagi bentuk tersebut ialah $L = 30r - \pi r^2$.

[3 markah]

Show that the area, $L \text{ cm}^2$, of the shape is $L = 30r - \pi r^2$.

[3 marks]

- (b) Seterusnya, cari luas maksimum, dalam cm^2 , bentuk tersebut.

[3 markah]

Hence, find the maximum area, in cm^2 , of the shape.

[3 marks]

- (c) Apabila $r = 4.55 \text{ cm}$, luas bentuk tersebut menyusut sebanyak 0.22%.
 Cari perubahan kecil bagi r , tepat kepada dua titik perpuluhan.

[3 markah]

When $r = 4.55 \text{ cm}$, the area of the shape decreased by 0.22%. Find the small change of r , correct to two decimal places.

[3 marks]

Jawapan / Answer:

10 (a) Diberi bahawa $g'(x) = px^n$.

It is given that $g'(x) = px^n$.

- (i) Menggunakan konsep pengamiran adalah proses songsangan kepada pembezaan, nyatakan fungsi bagi $\int px^n dx$.

Using the concept of integration is the reverse process of differentiation, state the function for $\int px^n dx$.

- (ii) Jika $g(x) = 4x^2$, cari nilai p dan nilai n .

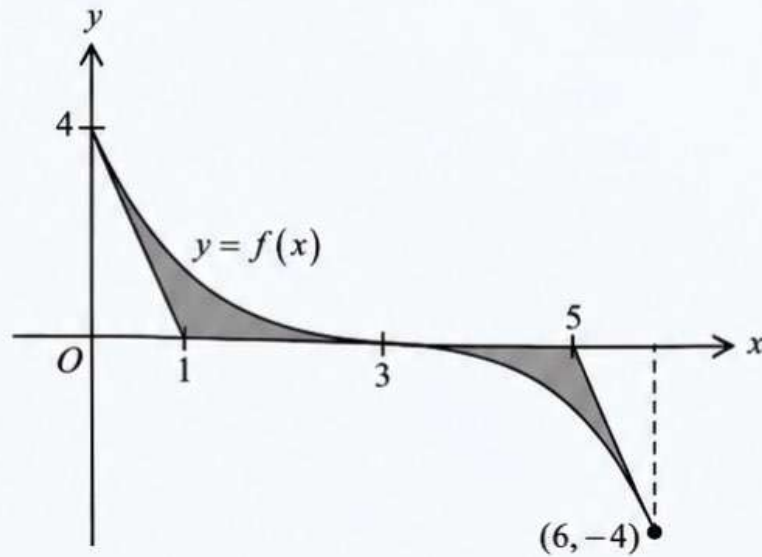
If $g(x) = 4x^2$, find the value of p and of n .

[4 markah]

[4 marks]

Jawapan / Answer:

- (b) Rajah 10 menunjukkan sebahagian daripada lengkung $y = f(x)$.
 Diagram 10 shows part of the curve $y = f(x)$.



Rajah 10
 Diagram 10

Diberi bahawa $\int_0^6 f(x)dx = 0$ dan luas kawasan berlorek ialah 3.5 unit^2 .

Cari $\int_0^3 f(x)dx$.

[2 markah]

It is given that $\int_0^6 f(x)dx = 0$ and the area of the shaded region is 3.5 unit^2 .

Find $\int_0^3 f(x)dx$.

[2 marks]

Jawapan / Answer:

[Lihat halaman sebelah

- 11 (a) Sebuah kotak mengandungi guli hijau dan guli biru dengan nisbah bilangan 1 : 3. Sebanyak 10 biji guli telah diambil secara rawak daripada kotak tersebut. Cari kebarangkalian sekurang-kurangnya 2 biji guli hijau diambil.

[4 markah]

A box contains green marbles and blue marbles with a ratio of 1 : 3. A total of 10 marbles were taken randomly from the box.

Find the probability that at least 2 green marbles are taken.

[4 marks]

Jawapan / Answer:

- (b) Jadual 11 menunjukkan bilangan calon yang bertanding dalam satu pemilihan Badan Wakil Pelajar (BWP).

Table 11 shows the number of candidates competing in a selection for Badan Wakil Pelajar (BWP).

Tingkatan <i>Form</i>	Lelaki <i>Male</i>	Perempuan <i>Female</i>
Tiga <i>Three</i>	2	2
Empat <i>Four</i>	9	7

Jadual 11

Table 11

Bilangan ahli BWP mesti terdiri daripada 8 lelaki dan 7 perempuan. Jika pelajar tingkatan tiga terpilih, hanya seorang sahaja daripada mereka yang boleh menjadi ahli BWP.

Cari bilangan cara untuk memilih ahli BWP.

[3 markah]

The members of BWP must consist of 8 male and 7 female. If form three student are chosen, only one of them can be the member of BWP.

Find the number of ways to choose the members of BWP.

[3 marks]

Jawapan / Answer:

[Lihat halaman sebelah

- 12 (a) (i) Bilangan pilih atur bagi n objek yang berbeza diambil r objek pada satu masa diberi oleh nP_r .

Nyatakan syarat bagi nilai r .

The number of permutations of n objects taking r each time is given by nP_r .

State the condition for the value of r .

- (ii) Diberi bahawa ${}^nP_5 = 56n(n^2 - 5n + 4)$, cari nilai n .

It is given that ${}^nP_5 = 56n(n^2 - 5n + 4)$, find the value of n .

[4 markah]

[4 marks]

Jawapan / Answer:

- 12 (b) Kelab Makmur menganjurkan acara cabutan bertuah di mana setiap orang akan mendapat suatu nombor empat digit. Jika nombor tersebut boleh dibahagi tepat dengan 3, maka pemegang nombor cabutan bertuah tersebut akan layak untuk cabutan hadiah utama.

[Suatu nombor boleh dibahagi tepat dengan 3 jika hasil tambah digit bagi nombor tersebut boleh dibahagi tepat dengan 3]

Kelab Makmur organizes a lucky draw where each person will receive a four digit number. If the number is divisible by 3, therefore the lucky draw number holder will be eligible for the grand prize draw.

[A number is divisible by 3 if the sum of the digits of that number is divisible by 3]

- (i) Cari bilangan nombor cabutan bertuah yang layak untuk memasuki cabutan hadiah utama menggunakan digit 3, 4, 6 dan 8 tanpa pengulangan.

Find the number of lucky draw numbers that will be eligible to enter the grand prize draw using the digits 3, 4, 6 and 8 without repetition.

[4 markah]

[4 marks]

- (ii) Menggunakan digit 1, 3, 5, 6 dan 7 dengan keadaan hanya digit 7 boleh diulang sekali, cari bilangan nombor cabutan bertuah yang layak untuk memasuki cabutan utama.

Using digits 1, 3, 5, 6 and 7 such that only digit 7 is allowed to be repeated once, find the number of lucky draw numbers that will be eligible to enter the grand prize draw.

[4 markah]

[4 marks]

Jawapan / Answer:

(i)

(ii)

[Lihat halaman sebelah

SULIT

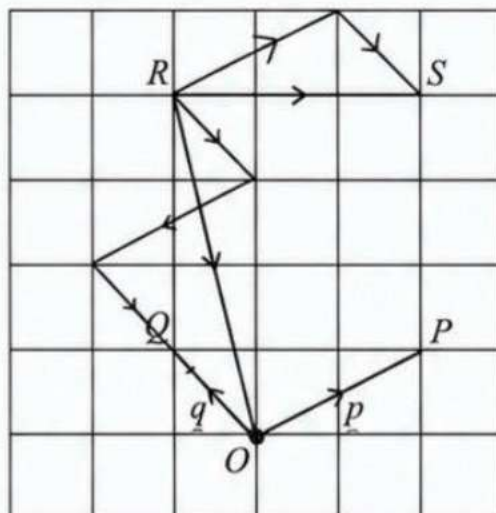
Bahagian B

[16 markah]

Bahagian ini mengandungi tiga soalan. Jawab dua soalan.

- 13 (a) Rajah 13 menunjukkan p dan q dilukis pada grid segi empat sama dengan sisi 1 unit.

Diagram 13 shows p and q drawn on a square grid with sides of 1 unit.



Rajah 13

Diagram 13

- (i) Ungkapkan $\overline{RS}$ dan $\overline{RO}$ dalam sebutan p dan q .
Express $\overline{RS}$ and $\overline{RO}$ in terms of p and q .
- (ii) Seterusnya, dengan menggunakan hukum segi tiga vektor, cari $\overline{OS}$.
Hence, by using vector's triangle law, find $\overline{OS}$.

[4 markah]

[4 marks]

[Lihat halaman sebelah]

- (b) Imran ingin menguji dua buah dron dalam sebuah terowong angin. Jadual 13 menunjukkan halaju bagi dron-dron yang diuji.

Imran wants to test two drones in a wind tunnel. Table 13 shows the velocity of the drones tested.

Dron Drone	Halaju dron (m s^{-1}) Velocity of drone (m s^{-1})
F	$\frac{7}{2}i + 5j$
G	$xi + yj$

Jadual 13

Table 13

Diberi bahawa halaju angin yang dihasilkan oleh terowong angin tersebut ialah $\underline{w} = (-3\mathbf{i} - 5\mathbf{j}) \text{ m s}^{-1}$. Jika halaju paduan dron G ialah vektor unit pada arah halaju paduan dron F , cari vektor halaju, dalam m s^{-1} , dron G . [4 markah]

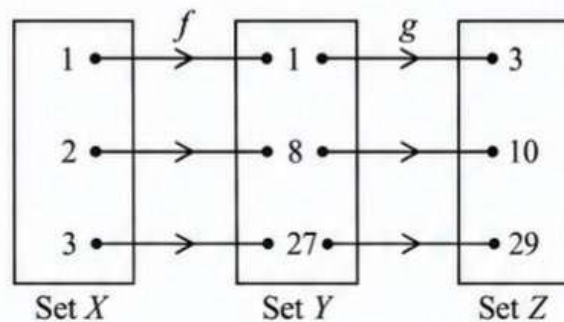
It is given that the velocity of the wind generated by the wind tunnel is $\underline{w} = (-3\mathbf{i} - 5\mathbf{j}) \text{ m s}^{-1}$. If the resultant velocity of drone G is a unit vector in the direction of the resultant velocity of drone F , find the velocity vector, in m s^{-1} , of drone G . [4 marks]

Jawapan / Answer:

[Lihat halaman sebelah

SULIT

- 14 Rajah 14 menunjukkan hubungan bagi tiga set.
Diagram 14 shows the relation of three sets.



Rajah 14
Diagram 14

- (a) Nyatakan nilai $g^{-1}(3)$. [1 markah]
State the value of $g^{-1}(3)$. [1 mark]
- (b) (i) Cari fungsi gubahan $fg(x)$.
Find the composite function of $fg(x)$.
- (ii) Seterusnya, jika $fg(x)$ dan $gf(x)$ mempunyai imej yang sama, cari imej tersebut.
Hence, if $fg(x)$ and $gf(x)$ have the same image, find the image. [5 markah]
[5 marks]
- (c) Tentukan $h(x)$ jika $hg(x) = \frac{1}{x-3}$, $x \neq 3$. [2 markah]
Determine $h(x)$ if $hg(x) = \frac{1}{x-3}$, $x \neq 3$. [2 marks]

Jawapan / Answer:

[Lihat halaman sebelah

- 15 (a) Diberi bahawa julat nilai x bagi ketaksamaan kuadratik $x^2 + 3x - 28 < 0$ ialah $k - 5 < x < k + 6$. Dengan menggunakan kaedah jadual, cari julat nilai x .
Seterusnya, cari nilai k . [3 markah]

It is given that the range of values of x for quadratic inequality $x^2 + 3x - 28 < 0$ is $k - 5 < x < k + 6$. By using the table method, find the range of values of x .

Hence, find the value of k . [3 marks]

- (b) Diberi bahawa persamaan kuadratik $px^2 + (3 - 2p)x + p - 5q = 0$ mempunyai nilai pembeza 5, ungkapkan p dalam sebutan q . [2 markah]

Given that the quadratic equation $px^2 + (3 - 2p)x + p - 5q = 0$ has discriminant value of 5, express p in terms of q . [2 marks]

- (c) Persamaan kuadratik $3x^2 - 8x + 2 = 0$ mempunyai punca-punca 2α dan 2β .

Bentukkan persamaan kuadratik yang mempunyai punca-punca $\frac{2}{\alpha} + 1$ dan $\frac{2}{\beta} + 1$. [3 markah]

The quadratic equation $3x^2 - 8x + 2 = 0$ has roots 2α and 2β . Form a quadratic equation with roots $\frac{2}{\alpha} + 1$ and $\frac{2}{\beta} + 1$. [3 marks]

Jawapan / Answer:

[Lihat halaman sebelah

KEBARANGKALIAN Hujung Atas $Q(z)$ BAGI TABURAN NORMAL $N(0, 1)$
THE UPPER TAIL PROBABILITY $Q(z)$ FOR THE NORMAL DISTRIBUTION $N(0, 1)$

z	0	1	2	3	4	5	6	7	8	9	Tolak / Minus								
0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641	4	8	12	16	20	24	28	32	36
0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247	4	8	12	16	20	24	28	32	36
0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859	4	8	12	16	20	24	28	32	36
0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3483	4	8	12	15	19	23	27	31	35
0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121	4	7	11	15	19	22	26	30	34
0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776	4	7	11	14	18	22	25	29	32
0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451	3	7	10	14	17	20	24	27	31
0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148	3	7	10	13	16	19	23	26	29
0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867	3	6	9	12	15	18	21	24	27
0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611	3	5	8	11	14	16	19	22	25
1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379	3	5	8	10	13	15	18	20	23
1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170	2	5	7	9	12	14	16	19	21
1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985	2	4	6	8	10	12	14	16	18
1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823	2	4	6	7	9	11	13	15	17
1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0721	.0708	.0694	.0681	2	3	5	6	8	10	11	13	14
1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559	1	3	4	6	7	8	10	11	13
1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455	1	2	4	5	6	7	8	10	11
1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367	1	2	3	4	5	6	7	8	9
1.8	.0359	.0351	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294	1	2	3	4	4	5	6	7	8
1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233	1	1	2	2	3	4	5	6	5
2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183	1	1	1	2	3	3	4	4	5
2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143	0	1	1	2	2	3	3	4	4
2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110	0	1	1	2	2	2	3	3	4
2.3	.0107	.0104	.0102								0	1	1	1	2	2	2	3	3
				.02990	.02964	.02939	.02914				3	5	8	10	13	15	18	20	23
								.02889	.02866	.02842	2	5	7	9	12	14	16	18	21
2.4	.02820	.02798	.02776	.02755	.02734						2	4	6	8	11	13	15	17	19
2.5	.02621	.02604	.02587	.02570	.02554	.02539	.02523	.02508	.02494	.02480	2	4	6	7	9	11	13	15	17
2.6	.02466	.02453	.02440	.02427	.02415	.02402	.02391	.02379	.02368	.02357	2	3	5	6	8	9	11	12	14
2.7	.02347	.02336	.02326	.02317	.02307	.02298	.02289	.02280	.02272	.02264	1	2	3	4	5	6	7	8	9
2.8	.02256	.02248	.02240	.02233	.02226	.02219	.02212	.02205	.02199	.02193	1	1	2	3	4	4	5	6	6
2.9	.02187	.02181	.02175	.02169	.02164	.02159	.02154	.02149	.02144	.02139	1	1	2	2	2	2	3	3	4
3.0	.0135	.0131	.0126	.0122	.0118	.0114	.0111	.0107	.0104	.0100									

[Lihat halaman sebelah