

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 | $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ | 18 | Isi padu kisaran
<i>Volume of revolution</i>
$= \int_a^b \pi y^2 dx$ atau (or)
$= \int_a^b \pi x^2 dy$ |
| 2 | $a^m \times a^n = a^{m+n}$ | | |
| 3 | $a^m \div a^n = a^{m-n}$ | | |
| 4 | $(a^m)^n = a^{mn}$ | | |
| 5 | $\log_a mn = \log_a m + \log_a n$ | 19 | $I = \frac{Q_1}{Q_0} \times 100$ |
| 6 | $\log_a \frac{m}{n} = \log_a m - \log_a n$ | 20 | $\bar{I} = \frac{\sum I_i W_i}{\sum W_i}$ |
| 7 | $\log_a m^n = n \log_a m$ | 21 | ${}^n P_r = \frac{n!}{(n-r)!}$ |
| 8 | $\log_a b = \frac{\log_c b}{\log_c a}$ | 22 | ${}^n C_r = \frac{n!}{(n-r)!r!}$ |
| 9 | $T_n = a + (n-1)d$ | 23 | $P(X=r) = {}^n C_r p^r q^{n-r}, p+q=1$ |
| 10 | $S_n = \frac{n}{2}[2a + (n-1)d]$ | 24 | Min / Mean, $\mu = np$ |
| 11 | $T_n = ar^{n-1}$ | 25 | $\sigma = \sqrt{npq}$ |
| 12 | $S_n = \frac{a(1-r^n)}{1-r} = \frac{a(r^n-1)}{r-1}, r \neq 1$ | 26 | $z = \frac{X-\mu}{\sigma}$ |
| 13 | $S_\infty = \frac{a}{1-r}, r < 1$ | 27 | Panjang lengkok, $s = j\theta$
<i>Arc length, $s = r\theta$</i> |
| 14 | $y = uv, \frac{dy}{dx} = u \frac{dv}{dx} + v \frac{du}{dx}$ | 28 | Luas sektor, $L = \frac{1}{2}j^2\theta$
<i>Area of sector, $A = \frac{1}{2}r^2\theta$</i> |
| 15 | $y = \frac{u}{v}, \frac{dy}{dx} = \frac{v \frac{du}{dx} - u \frac{dv}{dx}}{v^2}$ | 29 | $\sin^2 A + \cos^2 A = 1$
$\sin^2 A + \cos^2 A = 1$ |
| 16 | $\frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$ | 30 | $\sec^2 A = 1 + \tan^2 A$
$\sec^2 A = 1 + \tan^2 A$ |
| 17 | Luas di bawah lengkung
<i>Area under a curve</i>
$= \int_a^b y dx$ atau (or)
$= \int_a^b x dy$ | 31 | $\operatorname{cosec}^2 A = 1 + \cot^2 A$
$\operatorname{cosec}^2 A = 1 + \cot^2 A$ |

[Lihat halaman sebelah

- 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*
 $= \frac{1}{2} |(x_1y_2 + x_2y_3 + x_3y_1) - (x_2y_1 + x_3y_2 + x_1y_3)|$
- 43 $|\underline{r}| = \sqrt{x^2 + y^2}$
- 44 $\hat{\underline{r}} = \frac{x\underline{i} + y\underline{j}}{\sqrt{x^2 + y^2}}$

Bahagian A / Section A

[64 markah / marks]

Jawab semua soalan / Answer all questions.

1 Diberi $p = 2x - 3$ dan $y = -\frac{3}{p^2}$.

Given $p = 2x - 3$ and $y = -\frac{3}{p^2}$.

Cari / Find,

- (a) kadar perubahan nilai x , apabila diberi p berubah dengan kadar 3 unit sesaat,
the rate of change of the value of x , when the given p changes at a rate of 3 units per second,

[2 markah / marks]

- (b) $\frac{dy}{dx}$ dalam sebutan x ,
 $\frac{dy}{dx}$ in terms of x ,

[2 markah / marks]

- (c) perubahan hampir nilai y , apabila diberi x menyusut daripada 2 kepada 1.98.
the approximate change in y , when the given x decreases from 2 to 1.98.

[2 markah / marks]

Jawapan / Answer :

- 2 (a) Nilaikan/ *Find the value of* :

$$\int_1^2 \frac{2(x-3)(x+3)}{3x^2} dx$$

[2 markah / marks]

- (b) Diberi $y = \frac{2x-1}{x^2}$ dan $\frac{dy}{dx} = 2g(x)$ dengan keadaan $g(x)$ ialah fungsi dalam sebutan x .

Carikan nilai bagi $\int_{-1}^1 g(x) dx$.

Given $y = \frac{2x-1}{x^2}$ and $\frac{dy}{dx} = 2g(x)$ such that $g(x)$ is a function in terms of x .

Find the value of $\int_{-1}^1 g(x) dx$.

[3 markah / marks]

Jawapan / Answer :

- 3 (a) Cari bilangan cara nombor genap lima digit yang boleh dibentuk daripada digit-digit 4, 5, 6, 7 dan 8 tanpa ulangan.

Find the number of ways to form five-digit even numbers from the digit 4, 5, 6, 7 and 8 without repetition.

[2 markah / marks]

- (b) Sekumpulan 4 orang murid akan dipilih daripada 4 orang murid lelaki dan 6 orang perempuan untuk menyertai suatu persembahan. Cari bilangan cara berlainan murid tersebut boleh dipilih jika sekurang-kurangnya 2 orang murid lelaki mesti dipilih.

A group of 4 students is to be chosen from 4 boys and 6 girls to participate in a performance. Find the number of different ways the students can be selected if at least 2 boys must be selected.

[3 markah / marks]

Jawapan / Answer :

- 4 Dalam suatu ujian Matematik Tambahan, didapati 75% daripada murid lulus. Jika 10 orang murid dipilih secara rawak, cari kebarangkalian

In an Additional Mathematic test, 75% of the students passed. If 10 students are selected at random, find the probability that

- (a) tepat 3 orang murid gagal dalam ujian tersebut,
exactly 3 students have failed the test,

[2 markah / marks]

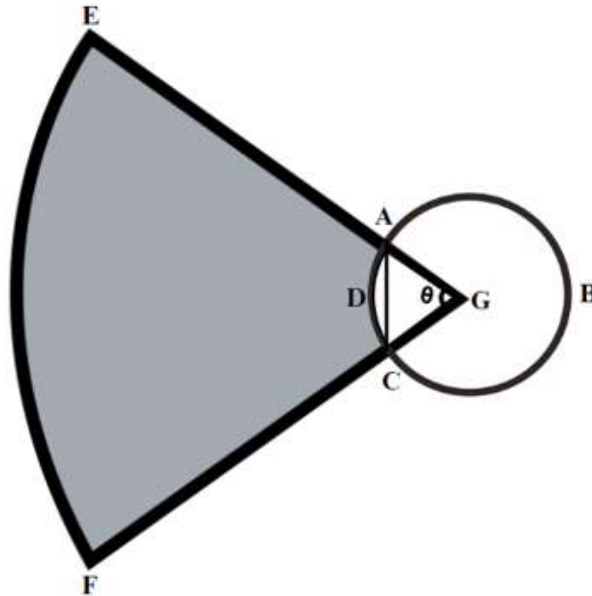
- (b) lebih daripada 8 orang murid lulus dalam ujian tersebut.
more than 8 students have passed the test.

[2 markah / marks]

Jawapan / Answer :

- 5 Rajah menunjukkan satu bulatan $ABCD$ dan sektor bulatan EFG , kedua-dua berpusat di G .

Diagram 5 shows the circle $ABCD$ and the sector bulatan EFG , both with the center G .



Rajah 5 / Diagram 5

Diberi bahawa $AG = 1.1$ cm dan panjang lengkok EF ialah 21 cm. Panjang lengkok ADC ialah 27 kali ganda lebih pendek daripada panjang lengkok EF .

It is given that $AG = 1.1$ cm and the length of the arc EF is 21 cm. The length of the arc ADC is 27 times shorter than the length of the arc EF .

Hitung

Calculate

- (a) nilai θ , dalam radian,
the value of θ , in radian,

[2 markah / marks]

- (b) perimeter, dalam cm, bagi rantau berlorek.
the perimeter, in cm, of the shaded region.

[3 markah / marks]

[Lihat halaman sebelah

Jawapan / *Answer* :

- 6 Di beri bahawa ABC ialah sebuah segi tiga. Koordinat titik A ialah $(-4,1)$.

$$\overrightarrow{AC} = 6i + 3j \text{ dan } \overrightarrow{BC} = -2i + 6j.$$

Given that ABC is a triangle. The coordinate of A is $(-4,1)$.

$$\overrightarrow{AC} = 6i + 3j \text{ and } \overrightarrow{BC} = -2i + 6j.$$

- (a) Menggunakan hukum segitiga vektor cari koordinat titik tengah bagi garis BC.

Using the vector's triangle law, find the coordinate of midpoint of the line BC.

[4 markah / marks]

- (b) Tentukan vector unit dalam arah $\overrightarrow{AC}$.

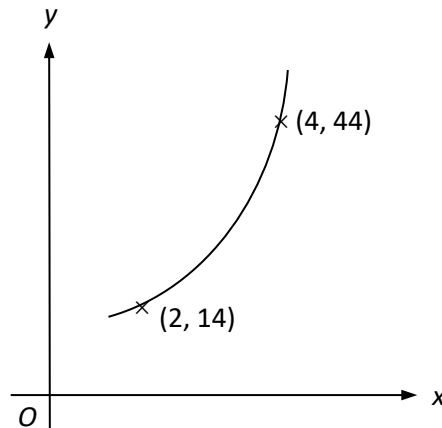
Determine the unit vector in the directions of $\overrightarrow{AC}$

[2 markah / marks]

Jawapan / Answer :

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7



Rajah 7 / Diagram 7

Rajah 7 menunjukkan sebahagian graf y melawan x . Diketahui bahawa x dan y dihubungkan oleh persamaan linear $\frac{y}{x} = kx + h$, dengan keadaan h dan k adalah pemalar.

Diagram 7 shows part of the graph of y against x . It is known that x and y are related by the linear equation $\frac{y}{x} = kx + h$, where h and k are constants.

- (a) Lakarkan graf garis lurus bagi persamaan tersebut.

Sketch the straight line of the equation.

[2 markah / marks]

- (b) Hitungkan nilai h dan k .

Calculate the value of h and of k .

[3 markah / marks]

Jawapan / Answer :

- 8 Selesaikan persamaan serentak berikut.

Solve the following simultaneous equations.

$$6x + y + 18 = 3x^2 + 9x - y = 3$$

[5 markah / marks]

Jawapan / Answer :

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- 9 (a) Nisbahkan penyebut dan permudahkan.

Rationalise the denominator and simplify.

$$\frac{2}{\sqrt{2}-2}$$

[3 markah / marks]

- (b) (i) Tunjukkan bahawa $\log_{a^3} hk = \frac{1}{3} \log_a h + \frac{1}{3} \log_a k$.

Show that $\log_{a^3} hk = \frac{1}{3} \log_a h + \frac{1}{3} \log_a k$.

[2 markah / marks]

- (ii) Seterusnya jika $\frac{1}{3}(\log_a 3 + \log_a q) = 1$, ungkapkan q dalam sebutan a.

Hence if $\frac{1}{3}(\log_a 3 + \log_a q) = 1$, express q in terms of a.

[2 markah / marks]

Jawapan / Answer :

[Lihat halaman sebelah

10 Diberi fungsi kuadratik $f(x) = -\frac{1}{2}(x - 1)^2 + 2$.

Given a quadratic function $f(x) = -\frac{1}{2}(x - 1)^2 + 2$.

(a) Lakarkan graf bagi fungsi kuadratik tersebut.

Sketch the graph of the quadratic function.

[3 markah / marks]

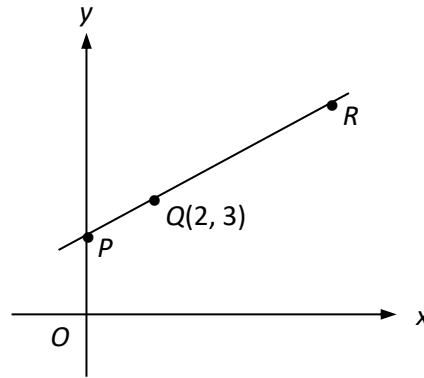
(b) Tuliskan fungsi kuadratik apabila graf itu dipantulkan pada paksi- $f(x)$.

Write the quadratic function if the graph is reflected on the $f(x)$ -axis.

[1 markah / mark]

Jawapan / Answer :

11



Rajah 11/ Diagram 11

Dalam Rajah 11, P , Q dan R ialah tiga titik pada garis $2y - x = 4$ dengan keadaan $PQ : QR = 1 : 4$. Cari

In Diagram 11, P , Q and R are three points on the line $2y - x = 4$ such that $PQ : QR = 1 : 4$. Find

- (a) koordinat bagi titik P ,
the coordinate of point P ,

[1 markah / marks]

- (b) persamaan garis lurus yang melalui titik Q dan berserenjang dengan PR ,
equation of the straight line that passes through the point Q and is perpendicular to PR ,

[3 markah / marks]

- (c) koordinat bagi titik R .
the coordinate of point R .

[2 markah / marks]

Jawapan / *Answer* :

- 12 (a) Dengan mempertimbangkan suatu jangjang geometri 2, -6, 18, -54, dan a ialah sebutan pertama manakala r ialah nisbah sepunya, tunjukkan bahawa sebutan ke- n jangjang geometri ini diperoleh dengan menggunakan rumus $T_n = ar^{n-1}$.

By considering a geometric progression 2, -6, 18, -54, and a is the first term while r is the common ratio, show that the n^{th} term of this geometric progression is given by the formula $T_n = ar^{n-1}$.

[3 markah / marks]

- (b) Diberi bahawa tiga sebutan pertama bagi suatu jangjang geometri ialah $6+2m$, $2-m$, $4-2m$. Tentukan nilai negatif bagi m .

The first three consecutive terms of a geometric progression are $6+2m$, $2-m$, $4-2m$. Determine the negative value of m .

[3 markah / marks]

Jawapan / Answer :

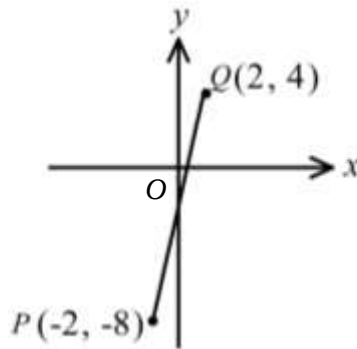
Bahagian B / Section B

(16 markah / marks)

Jawab mana-mana **dua** soalan daripada bahagian ini.*Answer any **two** questions from this section.*

- 13** Rajah 13 menunjukkan graf bagi fungsi $f(x) = 3x - 2$ untuk $-2 \leq x \leq 2$. Titik $P(-2, -8)$ dan $Q(2, 4)$ terletak pada graf itu.

Diagram 13 shows a graph of $f(x) = 3x - 2$ for $-2 \leq x \leq 2$. The points $P(-2, -8)$ and $Q(2, 4)$ lie on the graph.



Rajah 13 / Diagram 13

- (a) Lakarkan graf bagi fungsi $f^{-1}(x)$ dengan menunjukkan titik-titik yang sepadan dengan titik P dan Q.

Sketch the graph of $f^{-1}(x)$ by showing the points corresponding to point P and point Q.

[2 markah / marks]

- (b) (i) Cari $f^{-1}(x)$ dan seterusnya, tentusahkan bahawa $f^{-1}(x)$ yang diperoleh ialah songsangan bagi $f(x) = 3x - 2$

Find $f^{-1}(x)$ and hence, verify that $f^{-1}(x)$ obtained is the inverse function of $f(x) = 3x - 2$

[3 markah / marks]

- (ii) Nyatakan domain bagi $f^{-1}(x)$.

State the domain of $f^{-1}(x)$.

[1 markah / mark]

[Lihat halaman sebelah

- (iii) nilai x jika $f^{-1}(x) = f(x)$.
the value of x if $f^{-1}(x) = f(x)$.

[2 markah / marks]

Jawapan / Answer :

14 Diberi $x = h - \frac{1}{h}$ dan $y = 2h + \frac{1}{h}$.

Given $x = h - \frac{1}{h}$ and $y = 2h + \frac{1}{h}$.

(a) Tunjukkan $\frac{dy}{dx} = \frac{2h^2-1}{h^2+1}$

Show that $\frac{dy}{dx} = \frac{2h^2-1}{h^2+1}$

[4 markah / marks]

(b) Seterusnya, tentukan titik pusingan bagi $h > 0$.

Hence, determine the rotation point for $h > 0$.

[4 markah / marks]

Jawapan / Answer :

- 15 (a) Selesaikan persamaan $3 \sin 2x = \sin x$ untuk $0^\circ \leq x \leq 360^\circ$.

Solve the equation $3 \sin 2x = \sin x$ for $0^\circ \leq x \leq 360^\circ$.

[4 markah / 4 marks]

- (b) Diberi $\sin x = \frac{4}{5}$, dengan keadaan x ialah sudut cakah. Cari nilai $\tan 2x$.

Given $\sin x = \frac{4}{5}$, where x is an obtuse angle. Find the value of $\tan 2x$.

[4 markah / 4 marks]

Jawapan / Answer :

KERTAS PEPERIKSAAN TAMAT
END OF QUESTION PAPER

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	1	2	3	4	5	6	7	8	9
											Minus / Tolak								
0.0	0.5000	0.4960	0.4920	0.4880	0.4840	0.4801	0.4761	0.4721	0.4681	0.4641	4	8	12	16	20	24	28	32	36
0.1	0.4602	0.4562	0.4522	0.4483	0.4443	0.4404	0.4364	0.4325	0.4286	0.4247	4	8	12	16	20	24	28	32	36
0.2	0.4207	0.4168	0.4129	0.4090	0.4052	0.4013	0.3974	0.3936	0.3897	0.3859	4	8	12	15	19	23	27	31	35
0.3	0.3821	0.3783	0.3745	0.3707	0.3669	0.3632	0.3594	0.3557	0.3520	0.3483	4	7	11	15	19	22	26	30	34
0.4	0.3446	0.3409	0.3372	0.3336	0.3300	0.3264	0.3228	0.3192	0.3156	0.3121	4	7	11	15	18	22	25	29	32
0.5	0.3085	0.3050	0.3015	0.2981	0.2946	0.2912	0.2877	0.2843	0.2810	0.2776	3	7	10	14	17	20	24	27	31
0.6	0.2743	0.2709	0.2676	0.2643	0.2611	0.2578	0.2546	0.2514	0.2483	0.2451	3	7	10	13	16	19	23	26	29
0.7	0.2420	0.2389	0.2358	0.2327	0.2296	0.2266	0.2236	0.2206	0.2177	0.2148	3	6	9	12	15	18	21	24	27
0.8	0.2119	0.2090	0.2061	0.2033	0.2005	0.1977	0.1949	0.1922	0.1894	0.1867	3	5	8	11	14	16	19	22	25
0.9	0.1841	0.1814	0.1788	0.1762	0.1736	0.1711	0.1685	0.1660	0.1635	0.1611	3	5	8	10	13	15	18	20	23
1.0	0.1587	0.1562	0.1539	0.1515	0.1492	0.1469	0.1446	0.1423	0.1401	0.1379	2	5	7	9	12	14	16	19	21
1.1	0.1357	0.1335	0.1314	0.1292	0.1271	0.1251	0.1230	0.1210	0.1190	0.1170	2	4	6	8	10	12	14	16	18
1.2	0.1151	0.1131	0.1112	0.1093	0.1075	0.1056	0.1038	0.1020	0.1003	0.0985	2	4	6	7	9	11	13	15	17
1.3	0.0968	0.0951	0.0934	0.0918	0.0901	0.0885	0.0869	0.0853	0.0838	0.0823	2	3	5	6	8	10	11	13	14
1.4	0.0808	0.0793	0.0778	0.0764	0.0749	0.0735	0.0721	0.0708	0.0694	0.0681	1	3	4	6	7	8	10	11	13
1.5	0.0668	0.0655	0.0643	0.0630	0.0618	0.0606	0.0594	0.0582	0.0571	0.0559	1	2	4	5	6	7	8	10	11
1.6	0.0548	0.0537	0.0526	0.0516	0.0505	0.0495	0.0485	0.0475	0.0465	0.0455	1	2	3	4	5	6	7	8	9
1.7	0.0446	0.0436	0.0427	0.0418	0.0409	0.0401	0.0392	0.0384	0.0375	0.0367	1	2	3	4	4	5	6	7	8
1.8	0.0359	0.0351	0.0344	0.0336	0.0329	0.0322	0.0314	0.0307	0.0301	0.0294	1	1	2	3	4	4	5	6	6
1.9	0.0287	0.0281	0.0274	0.0268	0.0262	0.0256	0.0250	0.0244	0.0239	0.0233	1	1	2	2	3	4	4	5	5
2.0	0.0228	0.0222	0.0217	0.0212	0.0207	0.0202	0.0197	0.0192	0.0188	0.0183	0	1	1	2	2	3	3	4	4
2.1	0.0179	0.0174	0.0170	0.0166	0.0162	0.0158	0.0154	0.0150	0.0146	0.0143	0	1	1	2	2	2	3	3	4
2.2	0.0139	0.0136	0.0132	0.0129	0.0125	0.0122	0.0119	0.0116	0.0113	0.0110	0	1	1	1	2	2	2	3	3
2.3	0.0107	0.0104	0.0102								0	1	1	1	1	2	2	2	2
				0.00990	0.00964	0.00939	0.00914				3	5	8	10	13	15	18	20	23
								0.00889	0.00866	0.00842	2	5	7	9	12	14	16	16	21
2.4	0.00820	0.00798	0.00776	0.00755	0.00734						2	4	6	8	11	13	15	17	19
						0.00714	0.00695	0.00676	0.00657	0.00639	2	4	6	7	9	11	13	15	17
2.5	0.00621	0.00604	0.00587	0.00570	0.00554	0.00539	0.00523	0.00508	0.00494	0.00480	2	3	5	6	8	9	11	12	14
2.6	0.00466	0.00453	0.00440	0.00427	0.00415	0.00402	0.00391	0.00379	0.00368	0.00357	1	2	3	5	6	7	9	9	10
2.7	0.00347	0.00336	0.00326	0.00317	0.00307	0.00298	0.00289	0.00280	0.00272	0.00264	1	2	3	4	5	6	7	8	9
2.8	0.00256	0.00248	0.00240	0.00233	0.00226	0.00219	0.00212	0.00205	0.00199	0.00193	1	1	2	3	4	4	5	6	6
2.9	0.00187	0.00181	0.00175	0.00169	0.00164	0.00159	0.00154	0.00149	0.00144	0.00139	0	1	1	2	2	3	3	4	4
3.0	0.00135	0.00131	0.00126	0.00122	0.00118	0.00114	0.00111	0.00107	0.00104	0.00100	0	1	1	2	2	2	3	3	4

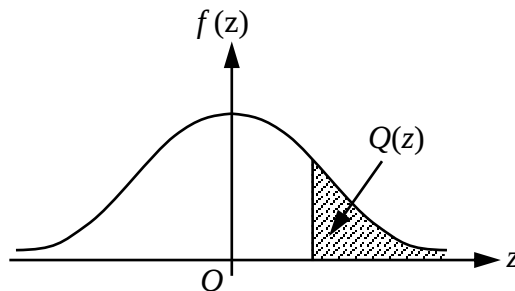
Bagi z negatif guna hubungan :

For negative z use relation :

$$Q(z) = 1 - Q(-z) = P(-z)$$

$$f(z) = \frac{1}{\sqrt{2\pi}} \exp\left(-\frac{1}{2}z^2\right)$$

$$Q(z) = \int_k^{\infty} f(z) dz$$



Contoh / Example :

Jika $X \sim N(0, 1)$, maka

If $X \sim N(0, 1)$, then

$$P(X > k) = Q(k)$$

$$P(X > 2.1) = Q(2.1) = 0.0179$$

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**MAKLUMAT UNTUK CALON
INFORMATION FOR CANDIDATES**

1. Kertas soalan ini mengandungi **15** soalan
This question paper consists of 15 questions.
2. Jawab **semua** soalan dalam Bahagian A dan **dua** soalan dalam Bahagian B.
*Answer **all** questions in Section A and **two** questions in Section B.*
3. Tulis jawapan anda dalam ruang yang disediakan dalam kertas soalan
Write your answers in the space provided in the question paper.
4. Tunjukkan langkah-langkah penting dalam kerja mengira anda. Ini boleh membantu anda untuk mendapatkan markah
Show your working. It may help you to get marks.
5. Sekiranya anda hendak menukar jawapan, batalkan jawapan yang telah dibuat. Kemudian tulis jawapan yang baharu
If you wish to change your answer, cross out the answer that you have done. Then write down 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. Markah yang diperuntukkan bagi setiap soalan ditunjukkan dalam kurungan.
The marks allocated for each question are shown in brackets.
8. Satu senarai rumus disediakan di halaman 2 .
A list of formulae is provided on page 2 .
9. Jadual Kebarangkalian Hujung Atas $Q(z)$ bagi Taburan Normal $N(0, 1)$ disediakan di halaman 29 .
The Upper Tail Probability $Q(z)$ For The Normal Distribution $N(0, 1)$ Table is provided on page 29 .
10. Anda dibenarkan menggunakan kalkulator saintifik
You may use a scientific calculator.
11. Serahkan kertas soalan ini kepada pengawas peperiksaan di akhir peperiksaan.
Hand in this question paper to the invigilator at the end of the examination.

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