



Rumus Algebra

Algebraic Formulae

Bahagian A/Section A

3.1 Rumus Algebra

Algebraic Formulae

- 1 Diberi $q^2 = \frac{1}{9}p + r^2$, maka $r =$

Given that $q^2 = \frac{1}{9}p + r^2$, then $r =$

A $\sqrt{q^2 + \frac{1}{3}p}$

B $\sqrt{q^2 + \frac{1}{9}p}$

C $\sqrt{q^2 - \frac{1}{3}p}$

D $\sqrt{q^2 - \frac{1}{9}p}$

- 2 Diberi $\frac{4(5r-t)}{t} = 3$, maka $t =$

Given that $\frac{4(5r-t)}{t} = 3$, then $t =$

A $\frac{20r}{7}$ C $\frac{7r}{4}$

B $\frac{5r}{7}$ D $\frac{5r}{4}$

- 3 Diberi bahawa $x = \sqrt{\frac{3+y}{z}}$. Ungkapkan z sebagai perkara rumus.

It is given that $x = \sqrt{\frac{3+y}{z}}$. Express z as the subject of the formula.

A $z = \frac{3+y}{x^2}$ C $z = \sqrt{\frac{3+y}{x}}$

B $z = \frac{3+y}{x}$ D $z = \frac{\sqrt{3+y}}{x^2}$

- 4 Diberi bahawa $p = \frac{9}{q^2} + 1$. Ungkapkan q dalam sebutan p .

It is given that $p = \frac{9}{q^2} + 1$. Express q in terms of p .

A $q = \frac{9}{\sqrt{p-1}}$ C $q = \frac{3}{\sqrt{p-1}}$

B $q = \sqrt{\frac{3}{p-1}}$ D $q = \frac{3}{\sqrt{p}} - 1$

- 5 Diberi bahawa $4q = 8p - 4pq$. Ungkapkan q sebagai perkara rumus.

It is given that $4q = 8p - 4pq$. Express q as the subject of the formula.

A $q = \frac{2p}{1+p}$ C $q = \frac{1+p}{2p}$

B $q = \frac{2p}{1-p}$ D $q = \frac{1-p}{2p}$

- 6 Diberi $\sqrt{\frac{2x-4}{3y}} = 2$, ungkapkan y dalam sebutan x .

Given that $\sqrt{\frac{2x-4}{3y}} = 2$, express y in terms of x .

A $y = \frac{x-4}{12}$ C $y = \frac{x-2}{6}$

B $y = \frac{2x-4}{12}$ D $y = \frac{2x-4}{6}$

- 7 Diberi bahawa $\frac{p+5q}{q-3} = 8$. Ungkapkan q sebagai perkara rumus.

It is given that $\frac{p+5q}{q-3} = 8$. Express q as the subject of the formula.

A $q = \frac{p+8}{3}$

B $q = \frac{p-8}{3}$

C $q = \frac{p-24}{3}$

D $q = \frac{p+24}{3}$

- 8 Sempena Pesta Buku Antarabangsa, sebuah buku rujukan Matematik yang berharga RM x diberi diskaun sebanyak RM2. Salmi membeli 6 buah buku rujukan tersebut dan membayar sebanyak RM Q , maka

In conjunction with the International Book Fair, a Mathematics reference book that cost RM x is sold at a discount of RM2. Salmi buys 6 reference books and pays RM Q , then

A $Q = x - 12$

B $Q = 6(x - 2)$

C $Q = 6x - 2$

D $Q = 2x - 6$

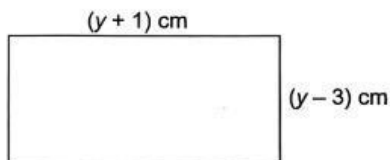
- 9 Diberi $E = mc^2$, cari nilai c jika $E = 250$ dan $m = 10$.
Given that $E = mc^2$, find the value of c if $E = 250$ and $m = 10$.

A 2 C 5
B 3 D 25

- 10 Diberi bahawa $2\sqrt{m-1} = n$. Ungkapkan m dalam sebutan n .
It is given that $2\sqrt{m-1} = n$. Express m in terms of n .

A $m = \frac{n^2}{2} + 1$
B $m = \frac{n^2}{4} + 1$
C $m = \frac{n^2 + 1}{4}$
D $m = \left(\frac{n}{2} + 1\right)^2$

- 11 Rajah 1 menunjukkan sebuah segi empat tepat.
Diagram 1 shows a rectangle.



Rajah 1/Diagram 1

Ungkapkan perimeter, P , dalam cm, bagi segi empat tepat itu dalam sebutan y .

Express the perimeter, P , in cm, of the rectangle in terms of y .

A $P = 4y - 4$ C $P = 4y - 2$
B $P = 4y + 4$ D $P = 4y + 2$

- 12 Bayaran tiket masuk ke sebuah taman tema untuk seorang kanak-kanak dan seorang dewasa masing-masing ialah RM x dan RM y . Ungkapkan jumlah bayaran tiket masuk, RM J bagi 5 orang kanak-kanak dan 10 orang dewasa dalam sebutan x dan y .

The price of an entry ticket to a theme park for a child and an adult are RM x and RM y respectively. Express the total entry ticket price, RM J , for 5 children and 10 adults in terms of x and y .

A $J = 5xy$ C $J = 10x + 5y$
B $J = 5x + 10y$ D $J = 50xy$

- 13 Diberi $k = \frac{4+m}{4-m}$, maka $m =$

Given that $k = \frac{4+m}{4-m}$, then $m =$

A $\frac{k+1}{1-k}$ C $\frac{4k-4}{1+k}$
B $\frac{k-1}{1+k}$ D $\frac{4k+4}{1-k}$