

**TOPIK: RUMUS ALGEBRA**

1. Given that  $\frac{3m^2n}{L^2} = 4$  express  $L$  in terms of  $m$  and  $n$

Diberi bahawa  $\frac{3m^2n}{L^2} = 4$  . ungkapkan  $L$  dalam sebutan  $m$  dan  $n$

A  $3m^2n \times 4$

C  $\frac{3m^2n}{L}$

B  $\sqrt{\frac{3m^2n}{4^2}}$

D  $\sqrt{\frac{3m^2n}{4}}$

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

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

A  $\frac{x-4}{4}$

C  $\frac{x-4}{6}$

B  $\frac{x-4}{1}$

D  $\frac{x^2-4^2}{6^2}$

3. Given  $T = \sqrt{\frac{3}{n}} + 4m$ , express  $n$  in terms of  $T$  and  $m$ .

Diberi  $T = \sqrt{\frac{3}{n}} + 4m$ , ungkapkan  $n$  dalam sebutan  $T$  dan  $m$ .

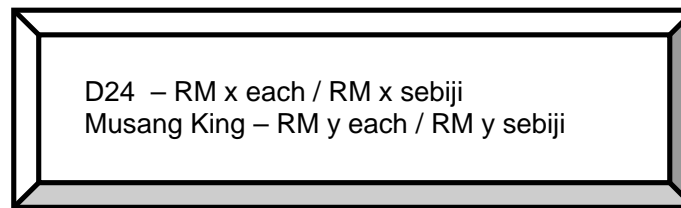
A  $n = 3 (T - 4m)^2$

C  $n = \frac{3}{T^2 - 4m^2}$

B  $n = 9 (T - 4m)^2$

D  $n = \frac{3}{(T - 4m)^2}$

4. Diagram below shows the prices of two types of durian in a fruit stall.  
*Rajah di bawah menunjukkan harga dua jenis durian di sebuah gerai buah-buahan.*



A customer paid RM 145 for 4 durian D24 and 3 durian musang king. Express  $y$  in terms of  $x$ .

*Seorang pelanggan membayar RM145 untuk 4 biji durian D24 dan 3 biji durian musang king. Ungkapkan  $y$  dalam sebutan  $x$ .*

A  $y = \frac{145 - 4x}{3}$

C  $y = \frac{4x - 145}{3}$

B  $y = \frac{145 - 3x}{4}$

D  $y = \frac{3x - 145}{4}$

5. Given  $P = \sqrt{\frac{4}{q}} + 3r$ , express  $q$  in terms of  $P$  and  $r$ .

*Diberi  $P = \sqrt{\frac{4}{q}} + 3r$ , ungkapkan  $q$  dalam sebutan  $P$  dan  $r$ .*

A  $q = 4(P - 3r)^2$

C  $q = \frac{4}{P^2 - 3r^2}$

B  $q = 16(P - 3r)^2$

D  $q = \frac{4}{(P - 3r)^2}$

6. Given that  $\frac{1}{L} = \frac{1}{M} + \frac{M}{N}$ , express  $N$  in terms of  $L$  and  $M$ .

*Diberi  $\frac{1}{L} = \frac{1}{M} + \frac{M}{N}$ , ungkapkan  $N$  dalam sebutan  $L$  dan  $M$ .*

A  $N = \frac{LM^2}{M - L}$

C  $N = \frac{M - L}{LM^2}$

B  $N = \frac{LM^2}{L - M}$

D  $N = M(L - M)$

7. Given that  $3p = \frac{4}{\sqrt{q}+1}$ , then  $q =$

Diberi bahawa  $3p = \frac{4}{\sqrt{q}+1}$ , maka  $q =$

- A  $\frac{1}{9p^2} + 1$  C  $(\frac{4}{3p} + 1)^2$   
 B  $(\frac{4}{3p} - 1)^2$  D  $\frac{1}{9p^2} - 1$

8. If  $\frac{1}{2}p = \frac{3}{2}k - 2\sqrt{r}$ , express  $k$  in terms of  $p$ ,  $q$  and  $r$ .

Jika  $\frac{1}{2}p = \frac{3}{2}k - 2\sqrt{r}$ , ungkapkan  $k$  dalam sebutan  $p$ ,  $q$  dan  $r$ .

- A  $k = \frac{p+4\sqrt{r}}{3q}$  C  $k = \frac{p-4\sqrt{r}}{3q}$   
 B  $k = \frac{4\sqrt{r}}{3q} - \frac{p}{3q}$  D  $k = \frac{4\sqrt{r}}{3q} + \frac{p}{3q}$

9. Given that  $2 - 7m^2 = 9(p + m^2)$ , express  $m$  in term of  $p$ .

Diberi  $2 - 7m^2 = 9(p + m^2)$ , ungkapkan  $m$  dalam sebutan  $p$ .

- A  $m = \frac{\sqrt{2-9p}}{16}$  C  $m = \frac{\sqrt{2-9p}}{4}$   
 B  $m = \frac{\sqrt{9p-2}}{16}$  D  $m = \frac{\sqrt{9p-2}}{4}$

10. Given that  $p = \frac{6+5q}{q-3}$  express  $q$  in term of  $p$ .

Diberi  $p = \frac{6+5q}{q-3}$ , ungkapkan  $q$  dalam sebutan  $p$ .

- A  $\frac{p+5}{3(2-p)}$  C  $\frac{3(2-p)}{p+5}$   
 B  $\frac{p-5}{3(2+p)}$  D  $\frac{3(2+p)}{p-5}$