TOPIK : INDEKS

1. Simplify $\left(\frac{a^3}{b}\right)^2 \times \frac{b}{c^2} \times \frac{c^3}{a^2} =$

Permudahkan $\left(\frac{a^3}{b}\right)^2 \times \frac{b}{c^2} \times \frac{c^3}{a^2} =$

A $\frac{a^4c}{b}$

B $\frac{a^3c}{b}$

C a^4c

D a^3c

2. Given that $\frac{9}{t^3} = 9^{-\frac{1}{2}}$, find the value of t.

Diberi bahawa $\frac{9}{t^3} = 9^{-\frac{1}{2}}$, cari nilai t.

A t = 2

B t = 3

C t = 4

D t = 5

3. Simplify $(4m^{-2}n)^3 \times \frac{1}{2}m^2n^{-1}$

Permudahkan $(4m^{-2}n)^3 \times \frac{1}{2}m^2n^{-1}$

A $32m^{-4}n^2$

B $32m^{-8}n^4$

C $m^{-4}n^2$

D $m^{-8}n^4$

4. $\dfrac{(3^2 \times 4^{-1})^{\frac{1}{2}}}{\sqrt{(9 \times 2^{-4})}}$

A 1
B 2
C 18
D 72

5. If $4^{-\frac{3}{2}} = \left(\dfrac{1}{2}\right)^n$, n is

Jika $4^{-\frac{3}{2}} = \left(\dfrac{1}{2}\right)^n$, n *ialah*

A 1
B 3
C 5
D 7

6. $\dfrac{(25x^{-2}y^3)^{\frac{1}{2}}}{x^3 y^{-\frac{1}{2}}} =$

A $5x^3y^2$
B $5\dfrac{y^{\frac{3}{2}}}{x^5}$
C $5(\dfrac{y}{x})^2$
D $5\dfrac{y^2}{x^4}$

7. Given $9^{\frac{1}{2}} \times 3^m = 27^m$, find the value of m.

Diberi $9^{\frac{1}{2}} \times 3^m = 27^m$ *, cari nilai m.*

A $-\frac{1}{2}$ C 1

B $\frac{1}{2}$ D 3

8. Given that $7(2^2) + 2^2 = \frac{4^{\frac{5}{2}}}{4^x}$, find the value of x.

Diberi $7(2^2) + 2^2 = \frac{4^{\frac{5}{2}}}{4^x}$ *, cari nilai x.*

A 4 C 1

B 2 D 0

9. Simplify:

Permudahkan:

$$\frac{(3pq^4)^2}{3p^3q^8} =$$

A $p^{-2}q^{-4}$ C $3p^{-2}q^{-4}$

B p^{-1} D $3p^{-1}$

10. Given tha $125^{2k} = 5^{k+2}$, find the value of *k*.

Diberi bahawa $125^{2k} = 5^{k+2}$*, cari nilai k.*

A $-\frac{2}{5}$ C $\frac{2}{5}$

B $\frac{2}{7}$ D $\frac{1}{2}$