Bab 1 Indeks
Indices

Bahagian A

1.1 Tatatanda Indeks
Index Notation

1 $\frac{256}{625} =$

A $\left(\frac{2}{5}\right)^4$

B $\left(\frac{4}{5}\right)^4$

C $\left(\frac{3}{7}\right)^3$

D $\left(\frac{5}{6}\right)^3$

Tip Cemerlang

Kaedah pembahagian berulang atau kaedah pendaraban berulang boleh digunakan untuk menukarkan suatu nombor kepada nombor dalam bentuk indeks.
Repeated division method or repeated multiplication method can be used to convert a number into a number in index form.

2 $0.4^3 =$

A 0.12
B 0.64
C 0.012
D 0.064

3 Hitung nilai bagi 7^4.
Calculate the value of 7^4.

A 28
B 343
C 2 401
D 16 384

1.2 Hukum Indeks
Law of Indices

4 $(p^5)^0 \times p^2 =$

A p^0
B p
C p^2
D p^{10}

Tip Cemerlang

- $a^m \times a^n = a^{m+n}$
- $(a^m)^n = a^{mn}$

5 $(x^2y^{-1})^3 \times y^8 =$

A x^5y^5
B x^5y^{11}
C x^6y^5
D x^6y^{11}

6 $(a^4)^2 \div a^3 =$

A a^2
B a^3
C a^4
D a^5

Tip Cemerlang

$a^m \div a^n = a^{m-n}$

MODUL HEBAT 31 (GANGSA)

7 $(q^{-2})^{-6} \div q^2 =$

MODUL HEBAT 31 (GANGSA)

A q^{-14}
B q^{-10}
C q^{10}
D q^{14}

8 $6 \times 6^{-3} =$

A 36
B 6
C $\frac{1}{6}$
D $\frac{1}{36}$

Tip Cemerlang

$a^{-n} = \frac{1}{a^n}, a \neq 0$

9 $\frac{(6p^2q^4)^2}{6p^6q^8} =$

MODUL HEBAT 31 (PERAK)

A $6p^{-2}$
B p^{-2}
C p^2
D $6p^2$

10 Permudahkan/ *Simplify* $\frac{(4x^2)^3}{5x - x^2}$.

A $\frac{12x^4}{5 + x}$
B $\frac{16x^4}{5 - x}$
C $\frac{64x^5}{5 - x}$
D $\frac{64x^6}{5 - x}$

11 Diberi $5^n \times 5^2 = 5^{10}$, cari nilai n.
Given $5^n \times 5^2 = 5^{10}$, find the value of n.

A 6
B 8
C 9
D 10

12 $(8^{\frac{1}{5}})^3 \times (8^{-3})^{\frac{1}{5}} =$

MODUL HEBAT 31 (PERAK)

A −1
B 0
C 1
D 8