

BAB : INDEKS
LATIHAN 1.2

Permudahkan.
Simplify.

HP5.2(iii) **BAND 3**

CONTOH

$$\begin{aligned} 9m^7 \times n \times n^3 \times (-2m) \\ = [9 \times (-2)]m^{7+1}n^{1+3} \\ = -18m^8n^4 \end{aligned}$$

$$\begin{aligned} 1. \quad 2^6 \times 6^3 \times 15^4 \times 2 \times 6^2 \\ = 2 \times 6 \times 15 \\ = 2 \times 6 \times 15 \end{aligned}$$

$$\begin{aligned} 2. \quad 3h^2 \times k^3 \times 4h \times \frac{5}{12}k^4 \\ = \left(3 \times 4 \times \frac{5}{12}\right)h^2k^3k^4 \\ = 5h^2k^7 \end{aligned}$$

5.3 Pembahagian Nombor dalam Tatatanda Indeks

Permudahkan.
Simplify.

HP5.3(ii) **BAND 3**

CONTOH

$$\begin{aligned} 27y^9 \div 9y^8 \\ = \left(\frac{27}{9}\right)y^{9-8} \\ = 3y \end{aligned}$$

$$\begin{aligned} 1. \quad 4^8 \div 4^3 \\ = 4 \\ = 4 \end{aligned}$$

$$\begin{aligned} 2. \quad \frac{7^{10}}{7} \\ = 7 \\ = 7 \end{aligned}$$

C. Permudahkan.
Simplify.

HP5.4(iii) **BAND 3**

CONTOH

$$\begin{aligned} (3^4 \times 7 \times 12^5)^2 \\ = 3^{4 \times 2} \times 7^{1 \times 2} \times 12^{5 \times 2} \\ = 3^8 \times 7^2 \times 12^{10} \end{aligned}$$

$$\begin{aligned} 1. \quad (4^2 \times 9^4)^3 \\ = 4^{2 \times 3} \times 9^{4 \times 3} \\ = 4 \times 9 \end{aligned}$$

$$\begin{aligned} 2. \quad (-3a^7bc^3)^3 \\ = (-3)^{1 \times 3}a^{7 \times 3}b^{1 \times 3}c^{3 \times 3} \\ = -27a^21b^3c^9 \end{aligned}$$

D. Permudahkan.
Simplify.

HP5.4(iii) **BAND 3**

CONTOH

$$\begin{aligned} \left(\frac{3d^5}{4e}\right)^3 &= \frac{3^{1 \times 3}d^{5 \times 3}}{4^{1 \times 3}e^{1 \times 3}} \\ &= \frac{27d^{15}}{64e^3} \end{aligned}$$

$$\begin{aligned} 1. \quad \left(\frac{7}{9^2}\right)^5 &= \frac{7^{1 \times 5}}{9^{2 \times 5}} \\ &= \frac{7}{9} \end{aligned}$$

$$\begin{aligned} 2. \quad \left(\frac{7w^2x}{8y^3}\right)^2 &= \frac{7^{1 \times 2}w^{2 \times 2}x^{1 \times 2}}{8^{1 \times 2}y^{3 \times 2}} \\ &= \frac{49w^4x^2}{64y^6} \end{aligned}$$