

LKPD 03

Pangkat Pecahan



Nama:

.....

Kelas:

.....

1. Tentukan hasil perpangkatan berikut, dengan menjodohkan kolom kiri dan kolom kanan.

$216^{\frac{1}{3}} = \dots$	-2
$(-32)^{\frac{1}{5}} = \dots$	16
$144^{\frac{3}{2}} = \dots$	256
$64^{\frac{4}{3}} = \dots$	6
$(\frac{1}{64})^{-\frac{2}{3}} = \dots$	1.728

2. Sederhanakan bentuk eksponen berikut.

$$\left(\frac{27a^{-1}b^3}{c^4}\right)^{\frac{1}{3}} \times \frac{c^{\frac{1}{3}}a^{-\frac{2}{3}}}{b}$$

Penyelesaian

$$\begin{aligned} & \left(\frac{27a^{-1}b^3}{c^4}\right)^{\frac{1}{3}} \times \frac{c^{\frac{1}{3}}a^{-\frac{2}{3}}}{b} \\ &= \frac{3a^{-\frac{1}{3}}b}{c^{\frac{4}{3}}} \times \frac{c^{\frac{1}{3}}a^{-\frac{2}{3}}}{b} = \frac{3a^{-\frac{1}{3} + (-\frac{2}{3})} \cdot b^{-1}}{c^{\frac{4}{3} - \frac{1}{3}}} \\ &= \frac{3a^{-1}}{c^1} = \frac{3}{c} \end{aligned}$$

