

Indices 1

Simplify each of the following:

a. $x^4 \times x^5 \div x^3$

b. $\frac{x^4}{y^2} \times \frac{z^3}{x} \div \frac{y^6}{z}$

c. $a^{-2} \times b^2 \div a^4$

d. $x^{\frac{1}{2}} \times x^{\frac{3}{2}} \times y \div y^{-\frac{1}{3}}$

1. Write each of the following without using indices. Simplify first if necessary.

a. $x^{\frac{1}{2}}$

b. $y^{\frac{3}{4}}$

c. $x^{\frac{2}{5}} \times x^{\frac{1}{5}}$

d. $\frac{a^{\frac{5}{6}}}{a^{\frac{1}{6}}}$

2. Write each of the following using indices:

a. $\sqrt[3]{x^2}$

b. $\sqrt[5]{y^3}$