

## Laws of Exponents

**1** Simplify this expression.

$$5^0 =$$

**2** Simplify this expression.

$$y^1 =$$

**3** Simplify this expression.

$$2^{-1} =$$

**4** Re-write without using fraction form.

$$\frac{1}{x^3} =$$

**5** Simplify this expression.

$$(x^2)^5 =$$

**6** Simplify this expression.

$$(x^a)^b =$$

**7** Simplify this expression.

$$a^2 \cdot a^4 =$$

**8** Simplify this expression.

$$a^2 \cdot a^{-4} =$$

**9** Simplify this expression.

$$\frac{x^7}{x^5} =$$

**10** Can this be simplified? If “yes”, then simplify it. If “no”, then explain why.

$$\frac{a^2}{b^8} =$$

**11** Simplify this expression.

$$(ab)^3 =$$

**12** Simplify this expression.

$$\left(\frac{x}{2y}\right)^2 =$$