

Rule 2

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

To divide powers
of a number,
subtract the indices.

Example 2 :-

$$\begin{aligned} & \frac{x^5}{x^3} \\ &= \frac{x \times x \times \cancel{x} \times \cancel{x} \times \cancel{x}}{\cancel{x} \times \cancel{x} \times \cancel{x}} \\ &= x^2 \end{aligned}$$

Use **Rule 2** above to simplify :-

(a) $\frac{x^5}{x^3}$

(b) $\frac{x^4}{x^2}$

(c) $x^7 \div x^4$

(d) $\frac{y^8}{y^3}$

(e) $y^{10} \div y^6$

(f) $\frac{y^9}{y^8}$

(g) $\frac{a^{11}}{a^7}$

(h) $\frac{b^{15}}{b^{11}}$

(i) $c^{18} \div c^{10}$

(j) $\frac{z^{1.5}}{z^{1.2}}$

(k) $\frac{p^{6.6}}{p^{4.8}}$

(l) $\frac{t^7}{t^2}$

(m) $t^5 \div t^{-3}$

(n) $x^{-7} \div x^3$

(o) $y^{-5} \div y^{-2}$