Rule 2

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

To divide powers of a number, **subtract** the indices.

Example 2 :-

$$\frac{x^5}{x^3}$$

$$= \frac{x \times x \times \cancel{x} \times \cancel{x} \times \cancel{x}}{\cancel{x} \times \cancel{x} \times \cancel{x}}$$

$$= x^2$$

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) $\frac{z^{1\cdot5}}{z^{1\cdot2}}$ (k) $\frac{p^{6\cdot6}}{p^{4\cdot8}}$ (l) $\frac{t^7}{t^2}$

(m) $t^5 \div t^{-3}$ (n) $x^{-7} \div x^3$ (o) $y^{-5} \div y^{-2}$.

LIVEWORKSHEETS