## Essential Skills 24

The questions in this series of worksheets appear frequently.
These are the GIFTS you must take to succeed
Indices (Non Calculator)
Simplify, leaving your answers with positive indices:

1. $\frac{x^{5} \times x^{6}}{x^{3}}$
2. $\frac{x^{7} \times x^{-4}}{x^{2}}$
3. $\frac{3 x^{2} \times x^{4}}{x^{-5}}$
4. $\frac{5 x^{3} \times 4 x^{2}}{2 x^{3}}$
5. $\frac{8 x^{5} \times 3 x}{12 x^{2}}$
6. $\frac{3 x^{2} \times 2 x^{-1}}{7 x}$
7. $\frac{2 x^{3} \times 5 x}{15 x^{-6}}$
8. $\frac{x^{8} \times 3 x^{-6}}{x^{5}}$
9. $\frac{2 x^{2} y^{3} \times 6 x^{2} y}{4 x y^{2}}$
10. $\frac{3 x^{2} y^{\frac{1}{3}} \times 6 x^{-1} y^{\frac{8}{3}}}{9 x^{3} y^{2}}$

## APPLYING QUESTION

(a) Simplify,

$$
\frac{x^{5} y^{3} \times 2 x^{-1} y}{3 x^{2} y^{5}}
$$

leaving your answer with positive indices.
(b) Hence, evaluate $\frac{x^{5} y^{3} \times 2 x^{-1} y}{3 x^{2} y^{5}}$, when $x=-3$ and $y=2$.

