



Leith Academy National 5 Home Learning



INDICES

NON-CALCULATOR

1) Simplify the following.

a) $x^5 \times x^{13}$ b) $3y^{-4} \times 2y^7$ c) $12z^8 \div 3z^3$ d) $(2m^{-2})^4$

2) Simplify the following, writing your answers with positive powers.

a) $\frac{a^{11} \times a^{-4}}{a^7 \times a^6}$ b) $\frac{3b^7 \times 4b^{-3}}{2b^{-5} \times 8b^4}$ c) $\frac{(3w^2)^3 \times 2w^{-5}}{6w^8}$

3) Evaluate the following.

a) $16^{3/2}$ b) $25^{-1/2}$ c) $8^{-5/3}$