

Key Words	Success Criteria	Class work (evaluation)	Homework
Powers ,simplify	Solve the following : (i) 100 (ii) $x^3 \times x^2$	Simplify the following : (i) x^7/x (ii) d^5/d^3 (iii) 10^{-4} (iv) $10^6 \times 10^4$	Simplify the following : a. $c^4 \div c$ b. $10a^8 \div 10a^2$ c. $(a^{11}/a^9)^0$
Reflection			

Notes
INDICES Indices is the power or exponent which is raised to a number or a variable .For example, in number 2^6 ,6 is the index of 4 . LAWS OF INDICES - The first index law : $a^m \times a^n = a^{m+n}$: Example $a^6 \times a^3 = a^9$ or $a^{(6+3)} = a^9$ - Second index law : $a^m/a^n = a^{m-n}$: Example $a^5/a^2 = a^3$ or $a^{(5-3)} = a^2$ - Third index law : $a^0 = 1$ (in index law any number raise to power zero is 1) - Fifth index law $(a^m)^n$: Example $(a^5)^3 = a^{15}$ - Fourth index law : $(a \times b)^m = a^m \times b^m$: Example $(5 \times 3)^5 = 5^5 \times 3^5$ $(a/b)^m = a^m/b^m$ Example $(5/6)^3 = (5/6) \times (5/6) \times (5/6)$ $= (5 \times 5 \times 5) / (6 \times 6 \times 6)$ $= 5^3/6^3$ - Negative powers $x^{-a} = 1/x^a$ OTHERS INVOLVING ROOTS $\sqrt{a} = a^{1/2}$ Example $\sqrt{4} = 4^{1/2} = \sqrt{4} = 2$ $\sqrt[3]{x} = x^{1/3}$ Example $\sqrt[3]{27} = 27^{1/3} = \sqrt[3]{27} = 3$