SURDS & INDICES

FACTS TO REMEMBER: <u>LAWS OF INDICES</u>

1. $a^m \times a^n = a^{(m+n)}$ 2. $\frac{a^m}{a^n} = a^{(m-n)}$ 3. $(a^m)^n = a^{m.n}$

4. $(ab)^n = a^n . b^n$ 5. $\left(\frac{a}{b}\right)^n = \frac{a^n}{b^n}$ 6. $a^0 = 1$

SURDS : If $a^{(\frac{1}{n})} = \sqrt[n]{a}$ is irrational (where 'a' is rational no. And 'n' is positive integer) , then it is called surd of order 'n'

FACTS TO REMEMBER: <u>LAWS OF SURDS</u>

1. $\sqrt[n]{a} = a^{(\frac{1}{n})}$ 2. $\sqrt[n]{ab} = \sqrt[n]{a} . \sqrt[n]{b}$ 3. $\sqrt[n]{\frac{a}{b}} = \frac{\sqrt[n]{a}}{\sqrt[n]{b}}$

4. $(\sqrt[n]{a})^n = a$ 5. $\sqrt[m]{\sqrt[n]{a}} = \sqrt[mn]{a}$ 6. $(\sqrt[n]{a})^m = \sqrt[n]{a^m}$