

## Indices Formula

1.  $a^m \times b^m = (ab)^m$

2.  $\frac{a^m}{b^m} = \left(\frac{a}{b}\right)^m$

3.  $a^m \times a^n = a^{m+n}$

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

5.  $(a^m)^n = a^{mn}$

6.  $a^0 = 1$

7.  $a^{-1} = \frac{1}{a}$

8. If  $a^m = a^n$  then  
 $m=n$  when  $a, b \neq 0$