

## Binomial Expansion Theorem

**Ex 1** Expand and simplify  
 $(x-2)^6$

The Binomial Theorem:

$(a+b)^n$ ;  $k = \#$  of the term

then the  $k^{\text{th}}$  term is

$${}_n C_r a^{n-r} b^r \quad (\text{where } r = k-1)$$

**Ex 2** Find the 5<sup>th</sup> term of  $(a+b)^7$

**Ex 3** Find the second term of  $(x-3y)^6$

$${}_n C_r a^{n-r} b^r$$