

Binomio de Newton

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PRODUCTO NOTABLE

La fórmula del producto notable es

$$(a + b)^2 = a^2 + 2ab + b^2$$

Función con R

```
binomioNewtwn2 = function(a,b){  
  a^2+2*a*b+b^2  
}  
binomioNewtwn2(1,2)
```

```
## [1] 9
```

```
binomioNewtwn2(2,1)
```

```
## [1] 9
```

BINOMIO DE NEWTWON

$$(a + b)^n = \sum_{k=0}^n \binom{n}{k} \cdot a^{n-k} \cdot b^k = \binom{n}{0} * a^n * b^0 + \dots + \binom{n}{n} * a^0 * b^n$$

Función con R

```
binomioNewtwn = function(a,b,n){  
  cumsum(choose(n,(0:n))*a^{n-(0:n)}*b^{(0:n)})[n+1]  
}  
binomioNewtwn(2,1,2)
```

```
## [1] 9
```