Notación exponencial (12-21)

La base es el numero por el cual se multiplica la cantidad de vecs por el exponente.

Si a es cualquier numero real y el exponente es un numero positivo, la enésima potencia de a es

A n = a . n factores

A = base

N = exponente

Leyes de exponentes

[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)

1. A[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m . A[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n = a [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m+n
2. (a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m) : (a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n) = a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m : a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n = a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m-n
3. (a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m) [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n = a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m.n
4. (a.b) [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n = a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n . b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n
5. (a:b) [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n = (a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n) : (b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n)

Observaciones

Exponente cero y negativo

• Si a =x 0 es cualquier numero real

• Y n es un entero positivo

a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)0 = 1

a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)-n = 1:(a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n)

1. (A:b) [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n = b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n:a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n
2. a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)-n : b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)-m = (1:a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n) : (1:b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m) = b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m : a [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n
3. a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)n : b[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)-m = (

Definicion de exponentes racionales

a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)(m:n) = (n/a) [^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m = n/a[^](https://mx.answers.yahoo.com/question/index?qid=20080428212608AAk4ySV)m

Si n es par, a>= 0

Definicion de una razón

Si n es cualquier entero positivo, entonces la raíz de n principal de a se define como sigue:

n/a = b^n

no se puede simplificar /a^2 = |a|

si el exponente es igual a la raíz, y ambos son pares

Propiedades de las raíces n

1. n/a.b = n/a . n/b
2. n/a:b = (n/a):(n/b)
3. m/n/a = m.n/a
4. n/a^n = a si n es impar
5. n/a^n = |a| si n es par

Guía

El 3 no va, el 5 no va, el 6 no va, el 7 tampoco.

1-2-4-8