

## Re: calculating an exponent?

**Source:** <http://coding.derkeiler.com/Archive/General/comp.programming/2004-09/1334.html>

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**Date:** 09/28/04

Date: Tue, 28 Sep 2004 10:16:09 -0700

Jani Yusef wrote:

/ ...

- > *Hmmm, thats interesting but I am still confused as to how this is done?*
- > *Suppose I want to calculate  $2^5$ , for example. What would the*
- > *calculation look like. Would it be broken down first into*
- >  *$2*(2*2)*(2*2)$  ors omething like that? How is that different then, say,*
- > *and even exponent? Sorry for all the questions but I really don't*
- > *understand this at all.*

How do you multiply two numbers together? Through a process of addition and bit shifting (the second is optional if you are willing to wait a long time for the result). How do you compute a power? By multiplying (or by computing a logarithm or two).

All these esoteric mathematical operations are expansions of addition and bit shifting.

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Paul Lutus

<http://www.arachnoid.com>