

## Re: Platonism

**Source:** <http://coding.derkeiler.com/Archive/General/comp.theory/2004-12/0280.html>

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**From:** patty (*pattyNO\_at\_SPAMicyberspace.net*)

**Date:** 12/06/04

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robert j. kolker wrote:

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> *patty wrote:*  
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>>  
>> *I don't know if its totally accurate to say that mathematics is not*  
>> *empirical. Once you make a construction, you subject it to tests. If*  
>> *the tests fail, you reject the construction. What is your criteria*  
>> *for being empirical ?*  
>  
>  
> *Measurement and observation vs formal deduction. Essentially all*  
> *mathematical proofs are tautologies. The same is not true for*  
> *empirically true statements.*  
>  
> *It is empirically true that the washington monument is 555 +- 1 foot*  
> *high. No logical contradiction would be entialed if it were only 500*  
> *feet high. An empirically true statement just so happens to be true. A*  
> *logically true statement is necessarily true.*  
>  
> *Bob Kolker*

Oh, your drawing that distinction. How do you determine that it applies? What do you do to determine that one construction is analytic and another is synthetic? Take for example " $x^n+y^n=z^n$ ". We can substitute integral values for x,y, z and n, and (with the with the exception of  $n=2$ ) can not find an integral solution to the equation. Pretty soon you conjecture that "there are no such solutions". I can examine many animal species and determine that every one i look at which has a heart also has kidneys. Pretty soon i conjecture that "all animals with a heart also have kidneys". What is the big difference? Aren't you just talking about proofs that have already been tested ?

patty