

Re: math programs

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Hmm, yes. As I delve more into the course descriptions and prerequisites for the analysis classes, it does seem that they are heavily associated with calculus.

So I guess it is safe to say that 'calculus' does not merit its own mention as a major area in the programs because it is considered part of the early development of the 'analysis' area (I see there is an opinion against this in the thread, but by "early development" I mean the usual order that the material is presented in for teaching purposes in most schools)... similar in the way that 'arithmetic' wouldn't be listed since it is well covered under the algebra area (not saying that we don't utilize arithmetic in the other areas, just that it is mostly taught within a sequence that leads to higher algebras)

so in general, at least in the typical way that material is taught, the main areas and what they include could be...

ALGEBRA – includes arithmetic, basic number theory, pre-algebra, college algebra, linear algebra, and some more...

ANALYSIS – includes various levels of basic and advanced calculus, functions, infinity, proofs, and more...

GEOMETRY/TOPO – trigonometry, geometry (Euclidean and non-E), topology, spaces...

Though it would be an interesting Philosophy of Mathematics question to discuss how arbitrary or real the above divisions are... but of course, we have to have some way of dividing up the material for pedagogical purposes... or do we? I wonder what interesting material and theorems other societies might come up with if they were spoon-fed the material in different patterns or with no divisions at all.