

**Mathematics** is a field of study that discovers and organizes methods, [theories](#) and [theorems](#) that are developed and [proved](#) for the needs of [empirical sciences](#) and mathematics itself. There are many areas of mathematics, which include [number theory](#) (the study of numbers), [algebra](#) (the study of formulas and related structures), [geometry](#) (the study of shapes and spaces that contain them), [analysis](#) (the study of continuous changes), and [set theory](#) (presently used as a foundation for all mathematics).