

Answer on Question #43151–Math–Geometry

Question

Explain the concept of geometry on a whole

Answer

Geometry (from the Ancient Greek: geo- "earth", -metron "measurement") is a branch of mathematics concerned with questions of shape, size, relative position of figures, and the properties of space. It explains the basic properties for every shape.

Generally, the geometry is classified into two types such as plane geometry and solid geometry. The plane geometry deals with one-dimensional (lines, points) and two-dimensional shapes (triangle, circle, rectangle, trapezoid, rhombus etc.) and solid geometry deals with three-dimensional shapes (sphere, cylinder, cube, cone, pyramid, prism etc.).

Despite all of the different subject areas of mathematics that exist, perhaps geometry has the most profound impact on our everyday lives. Everything around us has a shape, volume, surface area, location, and other physical properties. Since its origins, geometry has significantly impacted the ways people live.

While we may not immediately think "geometry", geometry is all around us. For instance, stop signs have the shape of an octagon, fish tanks must be carefully filled so as to prevent overflowing, and gifts need a certain amount of wrapping paper to look nice, just to name a few real-life applications.

As we find ourselves in a dynamic, technologically-driven society, geometry is becoming a subject of increasing importance. For example, molecular modeling is a growing field that requires an understanding of various arrangements of spheres, as well as the ability to compute molecular properties like volume and topology. Architecture is another major application of geometry. The construction of a building and the structure of its components are important to consider in order to maximize building safety.