

Mathematics in English

1 Document

From “A treatise on Elementary Trigonometry” by John Casey, Chapter I

1. **The numerical measure** of any quantity, such as an angle, a line, etc., is the ratio it bears to a certain standard quantity of the same kind as itself, called the **unit**. Thus, the **numerical** value of an angle is its ratio to the angular unit. The **numerical** value of a line is the number of linear units (such as feet, etc.), which it contains.

Mathematics are occupied with quantities, that is, with things that can be measured; and each branch deals with a special kind. Thus, Trigonometry primarily treats of calculations concerning lines and angles, and, in order that these may become subjects of computation^a, it is necessary to show how to measure them.

2. There are two methods of measuring angles : 1°. The *sexagesimal*, which is used in practical applications, such as Astronomy, Navigation, etc. 2°. The *circular* method, employed in Theoretical Trigonometry, and in the various branches of Analytical Mathematics.

2 Questions

1. What are the subject matters of Mathematics, according to the author ?
2. How are Mathematics divided ?
3. What is Trigonometry occupied with ?
4. What is meant with the numerical measure of any quantity ?
5. What is meant by the unit of any quantity ?
6. What is the unit of linear measure ?
7. How many methods of measuring angles are in use ?
8. Explain in a few words the circular method of measuring angles.

^acalculation