



GLOSSARY OF MATHEMATICAL TERMS

Term	Musical Terminology	Mathematical Terminology
Arc	In music, arc form is a sectional structure for a piece of music based on repetition, in reverse order, of most musical sections such that the overall form is symmetric, most often around a central point.	The length of a curve.
Bass / Base	Describes tones of low frequency or range. In musical compositions, these are the lowest parts of the music.	In plane geometry or solid geometry, the bottom of a figure. If the top is parallel to the bottom (as in a trapezoid or prism), both the top and bottom are called bases.
Binary	Binary form is a musical form in which two related, though different musical sections, are usually repeated.	A binary number is a number expressed in the binary numeral system, or base-2 numeral system, which represents numeric values using two different symbols: typically 0 (zero) and 1 (one).
Chord	A chord, in music, is any harmonic set of three or more notes that is heard as if sounding simultaneously.	A line segment on the interior of a circle. A chord has both endpoints on the circle.
Count	In music, counting is a system of regularly occurring sounds that serve to assist with the performance of music by allowing an easy identification of the beat.	The numbers used for counting. That is, the numbers 1, 2, 3, 4, etc.
Double	In music, double-time is a type of meter and tempo or rhythmic feel, which is often	For a substance growing exponentially, the time it takes for the amount of the substance to double.
Scale	In music, a scale is any set of musical notes ordered by fundamental frequency or pitch.	Any real numbers, or any quantity that can be measured using a single real number. Temperature, length, and mass are all scales. A scalar is said to have magnitude but no direction. A quantity with both direction and magnitude, such as force or velocity, is called a vector.
Serial	In music, serial music is a form of musical composition based on the placement of a series of tones, in a particular, non-repeating sequence.	The sum of the terms of a sequence. For example, the series for the sequence 1, 3, 5, 7, 9, . . . , 131, 133 is the sum $1 + 3 + 5 + 7 + 9 + \dots + 131 + 133$.
Set	In music, as in mathematics, a set is a collection of objects or items. In musical contexts the term is traditionally applied most often to collections of pitches or pitchclasses.	A group of numbers, variables, geometric figures, or just about anything. Sets are written using set braces $\{ \}$. For example, $\{1,2,3\}$ is the set containing the elements 1, 2, and 3.
Subdivision	To break up a larger metrical pattern into smaller parts so that it may be more easily understood.	The act of dividing a whole into pieces.
Symmetry	In music, symmetry is commonly found in the rising and falling of scales and in the composition of rounds and arc rondos.	Mathematically, symmetry means that one shape becomes exactly like another when you move it in some way: turn, flip or slide. For two objects to be symmetrical, they must be the same size and shape.