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My Country, 'Tis of Thee: Part 1

BEETHOVEN 7 Variations on 'God Save the King', WoO 78

MATH AND MUSIC - NOTE VALUES



In this episode, we listen to what Beethoven does with a simple tune to make it sound different in a variety of ways! He composed seven variations on the theme, each one a little more challenging for the pianist to play.

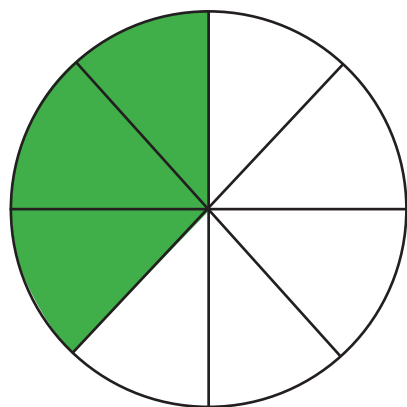
Buddy and guest artist Benjamin Rossen perform the first four variations in this episode. In these variations, Beethoven uses different note values—quarter notes, eighth notes, and sixteenth notes—to make the pieces faster and more complex, as well as harder to play! Let's learn more about these note values.

FRACTIONS - PART OF A WHOLE

Each note has its own note value. Note values tell us how many beats a note gets, or how long the note will last. But how do the notes get their names (whole, half, etc.)? Their names are based on math—they are fractions!

A **fraction** (i.e., $1/2$, $3/5$, $2/3$, etc.) is formed when we have a WHOLE that is divided into so many EQUAL parts. When something is broken up into equal parts, the fraction indicates how many

EXAMPLE:



3



How many parts we have
(the colored parts)

8

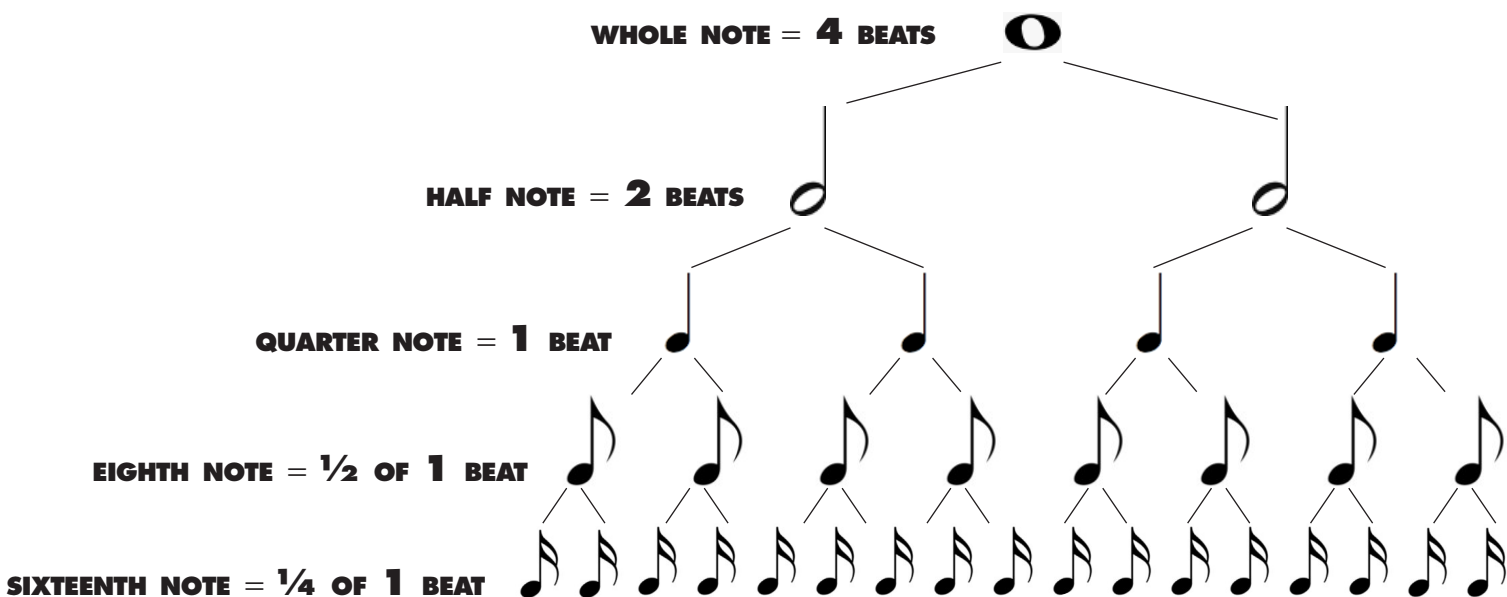


How many EQUAL parts the
whole is divided into





FRACTIONS IN MUSIC

In the musical world, we can start with the whole note as the basic unit to be divided up. It receives 4 beats.




Using the note value tree above, answer the following questions.

 Two halves, or $2/2$, equal a whole. One half note is $1/2$ of the whole note and lasts for 2 beats. How many half notes equal 1 whole note? _____

 Four quarters ($4/4$) equal a whole. A quarter note is equal to $1/4$ of the whole note and lasts for 1 beat. How many quarter notes equal 1 whole note? _____

The theme in Beethoven's 7 Variations on 'God Save the King' is written in quarter notes, making it easy to hear the simple melody.

 Eight eighths ($8/8$) equal a whole. An eighth note is equal to $1/8$ of the whole note and lasts for half of one beat. It takes 2 eighth notes to equal 1 quarter note. How many eighth notes equal 1 whole note? _____

The first variation in Beethoven's piece is written mostly in eighth notes, making its sound a bit faster and more complicated than the theme.



Sixteen sixteenths ($16/16$) equal a whole, so a sixteenth note is equal to $1/16$ of the whole note. It takes 4 sixteenth notes to equal 1 quarter note.

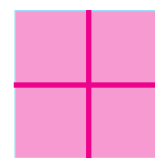
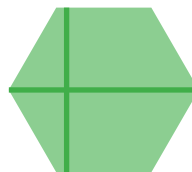
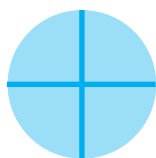
How many sixteenth notes equal 1 whole note? _____

The second, third, and fourth variations Beethoven wrote consist mainly of sixteenth notes, which are very fast notes that make these variations sound really fancy!

REVIEW

Let's see how much you learned about fractions with these fun exercises!

Circle the shapes that have been split into four equal parts.

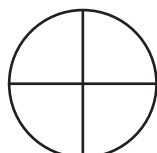


In the shapes below, color the correct number of parts indicated by the given fraction.

1/2



1/4



3/4



2/4

