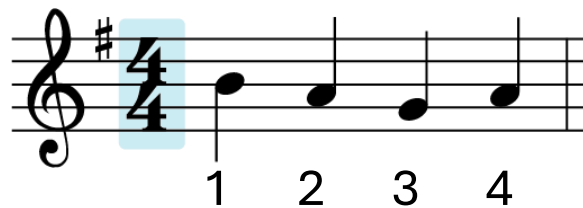


Rhythms and time signatures

I)The beat :

Definition: a beat is The basic unit of time in music; a steady pulse that underlies the rhythm.

Example: In **4/4 time**, each quarter note gets one beat. So, a steady series of quarter notes would be counted as "1, 2, 3, 4."



II)The meter :

Definition: refers to the structure that defines how many beats are in a measure and how they are grouped.

Types:

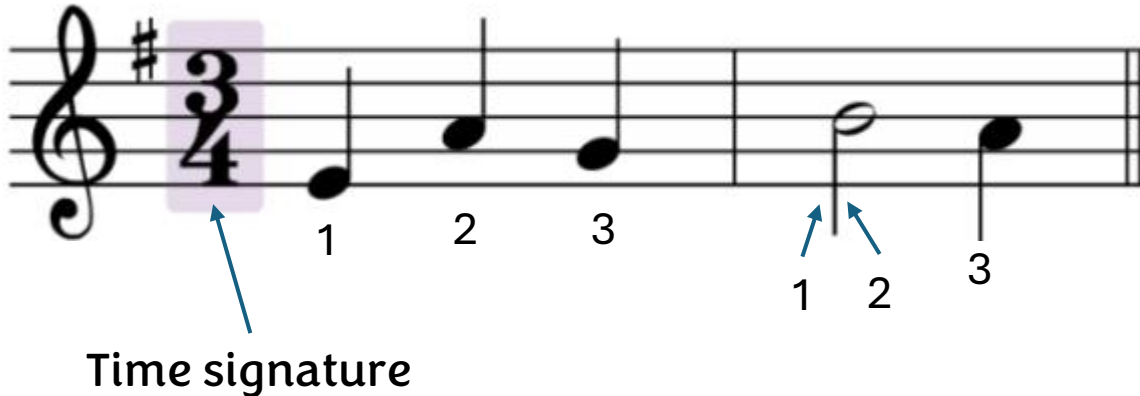
- Triple Meter: Three beats per measure.
- Duple Meter: Two beats per measure.
- Quadruple Meter: Four beats per measure.

III)Time signatures

Definition: Notation indicating how many beats are in each measure and what type of note gets the beat.

Common time signatures:

- 4/4**: Four quarter-note beats per measure.
- 3/4**: Three quarter-note beats per measure.
- 2/4**: Two quarter-note beats per measure.
- 6/8**: Six eighth-note beats per measure.



Components of time signatures:

Numerator (Top Number):
Indicates how many beats are in each measure.

Denominator (Bottom Number):
Indicates which note value is counted as one beat.

A large 3/4 time signature is shown. A blue arrow points from the text 'Numerator (Top Number):' to the top number '3'. Another blue arrow points from the text 'Denominator (Bottom Number):' to the bottom number '4'.

In this example, there are Three beats per measure; the quarter note gets one beat.

Denominator note values:



Whole note

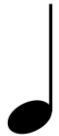


Half note

- 1: Whole note
- 2: Half note
- 4: Quarter note
- 8: Eighth note
- 16: Sixteenth note



Eighth note



Quarter note



Sixteenth note

IV)Tempo

Definition: The speed of the beat, measured in BPM (beats per minute).

How to calculate the tempo:

$$\text{Tempo} = \frac{\text{Number of beats}}{\text{Time (in minutes)}}$$

Example: let's say, in a song, you counted 40 beats in 30 seconds. Multiply the number of beats by 2 (since 30 seconds \times 2 = 1 minute). So, the tempo of this song is $40 \times 2 = 80$ BPM.