

**INTERVALS**

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An **interval** is the distance *between* any two pitches or notes (the “ambitus” - the space *between* 2 notes).

**Quantity** is how many positions on the staff (letter names) the interval spans.  
 For example: E to A = 4th  
 C to B = 7th  
 G to A = 2nd

**Quality** can be categorized as:  
 “flavors” { Perfect (P)  
 Major (M)  
 Minor (m)  
 Diminished (o)  
 Augmented (+)

Qualities change by increasing or decreasing the ambitus.

There are 2 types based on the number of possible qualities:

**Type 1**



Type 1 intervals are: U (Unisons), 4ths, 5ths, 8ths

**Type 2**



Type 2 intervals are: 2nds, 3rds, 6ths, 7ths

It is also helpful to know the intervals contained within the Major and Minor scales as a good reference and a way to double check yourself.

**Major**

<b>U</b>	<b>M2nd</b>	<b>M3rd</b>	<b>P4th</b>	<b>P5th</b>	<b>M6th</b>	<b>M7th</b>	<b>P8th</b>
^	^	^	^	^	^	^	^
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>1</b>

**Minor**

<b>U</b>	<b>M2nd</b>	<b>m3rd</b>	<b>P4th</b>	<b>P5th</b>	<b>m6th</b>	<b>m7th</b>	<b>P8th</b>
^	^	^	^	^	^	^	^
<b>1</b>	<b>2</b>	<b>b3</b>	<b>4</b>	<b>5</b>	<b>b6</b>	<b>b7</b>	<b>1</b>

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**SIMPLE INTERVALS**

**Simple intervals** are intervals that span less than one octave.

Because of the flexibility of the system, many intervals can be spelled with different names. Intervals with the same sound but different spellings are called **enharmonic intervals**. The quantity is only 2.

**Note:** Intervals have ONLY ONE name.  
C to D# is a +2nd, not a m3rd.

	enharmonic			enharmonic		
# of half steps	0	1	1	2	3	3
	<b>PU</b>	<b>+U</b>	<b>m2nd</b>	<b>M2nd</b>	<b>+2nd</b>	<b>m3rd</b>

	enharmonic			enharmonic		
# of half steps	4	5	6	6	7	8
	<b>M3rd</b>	<b>P4th</b>	<b>+4</b>	<b>* o5th</b>	<b>P5th</b>	<b>+5th</b>
				tritone		<b>m6th</b>

	enharmonic			
# of half steps	9	10	10	11
	<b>M6th</b>	<b>+6th</b>	<b>m7th</b>	<b>M7th</b>
				<b>P8th</b>

**\*TRITONE**

The **tritone** (tri- or three and tone) is a musical interval that spans three whole tones. It also is intervallically exactly half of an octave. The tritone can only be written as an augmented fourth, or its enharmonic equivalent, a diminished fifth. It is often used as the main interval of dissonance in western harmony and is important in the study of musical harmony.

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**COMPOUND INTERVALS**

**Compound intervals** are intervals that span more than one octave. They follow the same rules as their simple counterparts.

Musical staff showing four compound intervals:

- M9th**: Major 9th interval (C4 to D5)
- M10th**: Major 10th interval (C4 to E5)
- +9th**: Augmented 9th interval (C4 to D#5)
- m13th**: Minor 13th interval (C4 to Bb6)

**Trick:** Subtract 7 from the interval to get its simple counterpart.

For example:

Musical staff illustrating the trick: **+9th (minus) 7 = +2nd**. The diagram shows a major 9th interval (C4 to D5) and its simple counterpart, an augmented 2nd interval (C4 to D#4). A circled "OR" indicates the alternative calculation: **+2nd**.

**INVERSION**

**Inversion** is a displacement of either note of an interval by an octave. Although the same pitches are used, a new interval is the result.

Musical staff showing four interval inversions:

- M3 = m6th**: Major 3rd (C4 to E4) inverted to minor 6th (C5 to A4)
- M7th = m2nd**: Major 7th (C4 to B4) inverted to minor 2nd (C5 to B4)
- m2nd = M7th**: Minor 2nd (C4 to Bb4) inverted to major 7th (C5 to Bb4)
- m6th = M3rd**: Minor 6th (C4 to Ab4) inverted to major 3rd (C5 to Eb4)

**Trick:** Subtract the interval from 9, reverse its quality.

For example:

**m3rd (minus) 9 = M6th** (reverse quality) | **M7th (minus) 9 = m2nd** (reverse quality)

**Inversion**

- M** becomes **m**
- m** becomes **M**
- +** becomes **o**
- o** becomes **+**
- P** remains **P**