

### Section 3.1

## INTRODUCTION TO INTERVALS

### Interval definition

An **interval** is the pitch distance (high-low distance) between two notes. **Interval names** have two parts:

1. The **general category** of the interval, based on counting the number of letter names using the starting letter name as number one; and
2. The **quality** of the interval, related to how many half steps are between the notes.

### Major and perfect intervals

**Major** and **perfect** quality intervals match the notes of a major scale, starting from the first note of the scale up. **Seconds, thirds, sixths, and sevenths** can be **major** in quality, but never perfect. **Unisons, fourths, fifths, and octaves** ("8ves") can be **perfect** in quality, but never major.

C major scale with scale steps numbered:

|                            |                  |                  |                    |                    |                  |                  |                             |
|----------------------------|------------------|------------------|--------------------|--------------------|------------------|------------------|-----------------------------|
| 1 - 1                      | 1 - 2            | 1 - 3            | 1 - 4              | 1 - 5              | 1 - 6            | 1 - 7            | 1 - 8                       |
| Half steps: (0)            | (2)              | (4)              | (5)                | (7)                | (9)              | (11)             | (12)                        |
| <b>Perfect Unison (PU)</b> | <b>Major 2nd</b> | <b>Major 3rd</b> | <b>Perfect 4th</b> | <b>Perfect 5th</b> | <b>Major 6th</b> | <b>Major 7th</b> | <b>Perfect Octave (8ve)</b> |

### Minor intervals

**Minor intervals** are one half step smaller than major intervals, keeping the same letter names. Only intervals that can be major are able to become minor: **seconds, thirds, sixths, and sevenths** only.

**Seconds:**

Minor second ← Major second

**Thirds:**

Minor third ← Major third

**Sixths:**

Minor sixth ← Major sixth

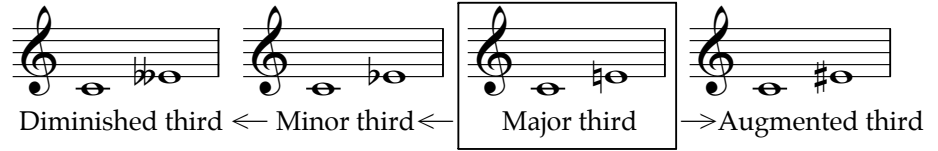
**Sevenths:**

Minor seventh ← Major seventh

**Diminished**  
**Augmented**

**Diminished intervals** are one half step smaller than minor or perfect intervals, keeping the same letter names. **Augmented intervals** are one half step larger than major or perfect intervals, keeping the same letter names.

**Thirds** (seconds, sixths, and sevenths are similar):



**Fourths** (unisons, fifths, and octaves are similar):



**Consonant intervals**

**Perfect, imperfect consonances**

**Consonant intervals** are intervals that sound more stable because of the closer relationship between the physical vibration patterns of the notes. The closest relationships (and therefore the most stable intervals) are the **perfect consonances**: perfect unison, perfect fifth, and perfect octave. The **imperfect consonances** are major and minor thirds and sixths. They are not as stable as perfect consonances, but more stable than dissonances.

**Dissonant intervals**

**Perfect fourth**

The **dissonant intervals** are seconds and sevenths as well as all diminished and augmented intervals. The notes in dissonant intervals have physical vibration patterns that are relatively unrelated to one another and are therefore unstable when compared to consonances. The **perfect fourth** is sometimes considered a consonance and sometimes a dissonance, depending on style and musical context.

**Simple and compound intervals**

**Simple intervals** are an octave or smaller. **Compound intervals** are larger than an octave. Compound intervals use the same quality names as their simple counterparts (major, perfect, etc.). To convert from simple to compound, **add 7**. Example: 2nd + 8ve = 9th since 2 + 7 = 9.

