Intervals

Harmonic vs. Melodic Intervals

Harmonic intervals are sounded simultaneously, whereas melodic intervals are sounded one after the other

Harmonic intervals (Vertical)



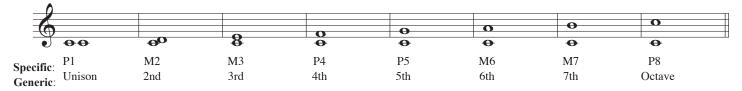
Melodic intervals (Horizontal)



Simple Intervals

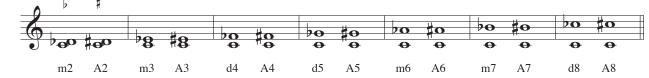
Intervals within the octave

Specific intervals indicate the quality and size of an interval, whereas generic intervals indicate size only.



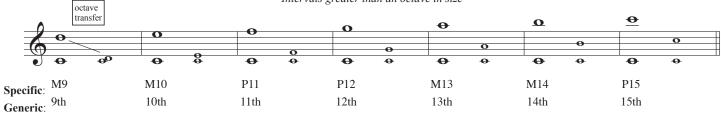
Interval Transformation*

diminished (d) <-> perfect (P) <-> augmented (A) diminished (d) <-> minor (m) <-> major (M) <-> augmented (A)



Compound Intervals

Intervals greater than an octave in size



Interval Ratios

 $Intervals\ expressed\ as\ just\ (5-limit)\ frequency\ ratios\ and\ their\ traditional\ classifications\ as\ a\ musically\ consonanant\ or\ dissonanant.$

٨	Perfect consonance:					Imperfect consonance:				Dissonance:					
6		0	0	•		0	20	20		þo		0	#o	1	
	00	•	0	•	8	•	8	•	OO	0) O O	0	To-		
Ratio:	1:1	2:1	3:2	4:3	5:4	5:3	6:5	8:5	9:8	9:5	16:15	15:8	45:32		
Specific:	P1	P8	P5	P4	M3	M6	m3	m6	M2	m7	m2	M7	A4		

- * The symbol <-> means exapansion (->) or contraction (<-) by a semitone, respectively. Expansion of an augmented interval by a semitone produces a doubly-augmented interval. Contraction of a diminished interval by a semitone produces a doubly-diminished interval.
- ** The P4 is a special case. We will consider a P4 to be to be dissonant when it it formed with the bass and consonant otherwise.