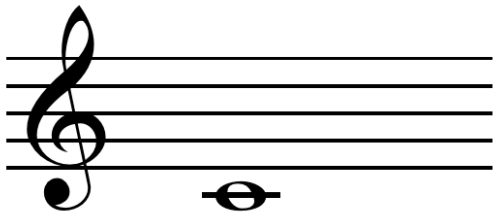
Let's Make Music – Crib Sheet

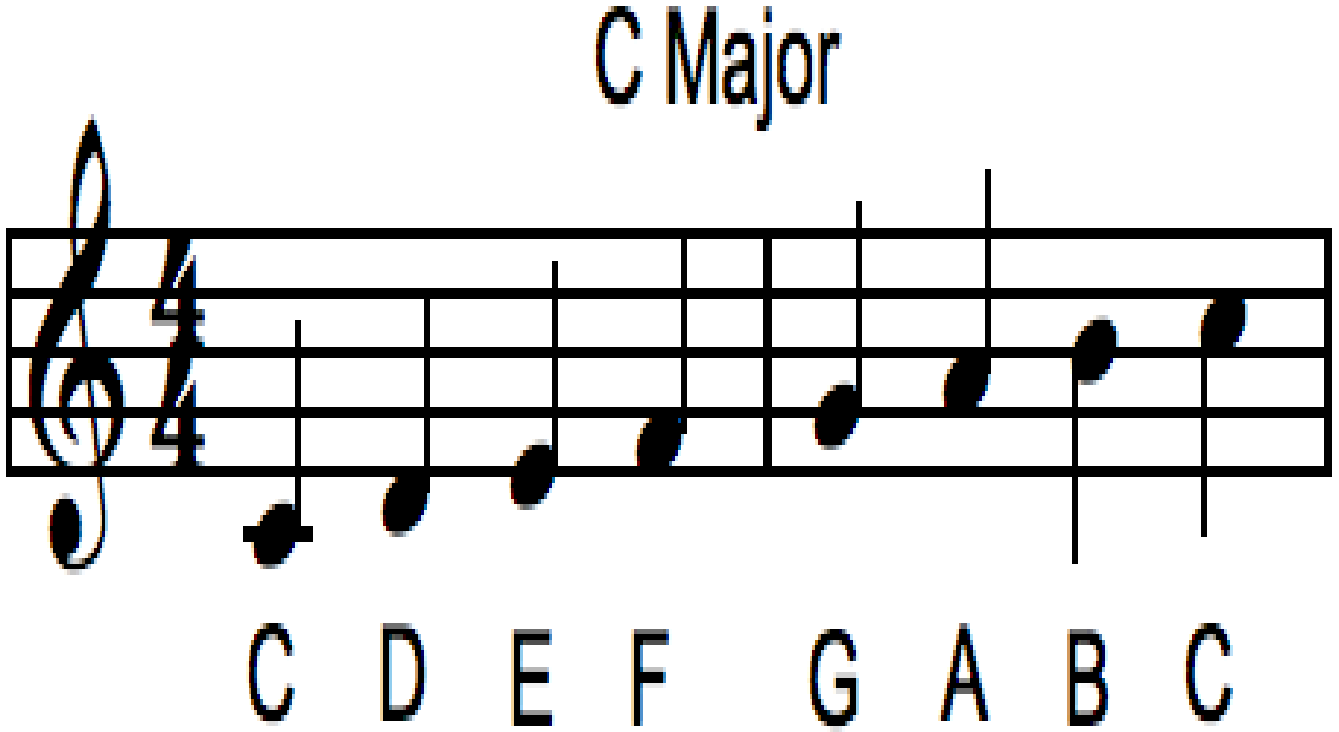
Table of Name of Notes (low to high)

Table of computer notes, by name low ⟵ ⟶ high							
B0	B1	B2	B3	B4	B5	B6	B7
C1	C2	C3	C4	C5	C6	C7	C8
CS1	CS2	CS3	CS4	CS5	CS6	CS7	CS8
D1	D2	D3	D4	D5	D6	D7	D8
DS1	DS2	DS3	DS4	DS5	DS6	DS7	DS8
E1	E2	E3	E4	E5	E6	E7	
F1	F2	F3	F4	F5	F6	F7	
FS1	FS2	FS3	FS4	FS5	FS6	FS7	
G1	G2	G3	G4	G5	G6	G7	
GS1	GS2	GS3	GS4	GS5	GS6	GS7	
A1	A2	A3	A4	A5	A6	A7	
AS1	AS2	AS3	AS4	AS5	AS6	AS7	

"C3" is middle C, That is:



C Major musical scale	Computer note name




```
   etc.↑
-   C4
-   B3
-   A3
-   G3
-   F3
-   E3
-   D3
-   C3 (middle C)
   etc. ↓
```

Table of Computer Note & Rest Names, Values, Beats & Symbols

Note duration name	Note/Rest duration time computer name	Note/Rest values	Note/Rest value	Number of beats	Note symbol	Rest symbol
Semi-brieve	`semib`	Whole note/rest	1	4 beats		
Dotted minim	`dot_minim`	Three quarter note/rest	¾	3 beats		
Minim	`minim`	Half note/rest	½	2 beats		
Crotchet	`crot`	Quarter note/rest	¼	1 beat		
Quaver	`quav`	Eight note/rest	1/8	1/2 beat		
Semiquaver	`semiq`	Sixteenth note/rest	1/16	1/4 beat		

Durations may be compounded and/or arithmetically adjusted in all music commands (`play` and `rest`). For example,

```
play(AS5, crot + quav); // 1.5 beats
play(C6, quav + semiq); // 0.75 beats
play(B2, semib * 1.5);  // 6 beats
play(FS4, crot + semiq);// 1.25 beats
play(DS3, quav + quav); // 1 beat
play(D6, crot / 3);     // 1/3 beat
play(DS4, dot_minim + minim);  // 5 beats
rest(quav + semiq);          // 0.75 beats
rest(crot + semiq);          // 1.25 beats
rest(semib * 1.75);          // 7 beats
rest(semiq / 2);             // 1/8 beats, demisemiquaver
etc.
```

In-built computer tempos

Computer tempo names	Number beats per minute	Other computer names	Comments

grave	40		The time interval for a crotch is automatically calculated as:
			60/tempo.
			
			Other notes are then calculated based on the crotchet value.
			
			Use `set_tempo` to change tempo value for notes and rests.
			
			Note that any tempo value may be set, e.g.
			
			`set_tempo(default_tempo * 1.5);`
			`set_tempo(190);`
			`set_tempo(adagio * 2);`
			`set_tempo(95);`
			`etc.`

largo	46		
lento	52		
adagio	56		
larghetto	60		
adagietto	66		
andante	72		
andantino	80		
maestroso	88		
moderato	100		
allegretto	104		
animato	120	default_tempo	
allegro	132		
allegro_assai	144		
vivace	160		
presto	184		
prestissimo	208		

Music commands

Command	Parameters	Description	Examples
`play`	note name, note duration time	Plays the given note for the given duration. Time duration can be given explicitly as seconds/fraction of seconds or as a computer note/rest value, see table above - Computer Note & Rest Name Values.	`play(C4, minim);` `play(FS3, 3.5); // play for 3.5 beats`

`rest`	rest duration time	Rests for the given duration (period of silence).
		Time duration can be given explicitly as seconds/fraction of seconds or as a computer note/rest name value.
			`rest(crot);`
			`rest(minim+quav);`
			`rest(4);`

`set_tempo`	tempo time	Sets the tempo for playing notes/rests. The '`default_tempo`' is 120 beats per minute (animato).
		The currently set tempo may be queried at any time by reference to the variable '`current_tempo`'.
			`set_tempo(default_tempo);`
			`set_tempo(default_tempo * 1.5);`
			`set_tempo(allegro);`

`wait`	duration time	The computer will wait for the given duration time during which time no new commands can be executed.
		Note that any lights set to flash will continue to flash while the wait command is pending.
			`wait(3.5);`
			`wait(0.25);`
			`wait(crot); // wait for 1 beat`

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