

Chords (Triads)

A **chord** is a collection of two or more notes that are sounded/ played together. Chords can be used to accompany melodies, or as backings for improvisation.

The most common type of chord is the triad – three note chords. Each triad is made up of a root (the first note), a third and a fifth. As well as being built on the first degree of a scale, most triads can be built starting on all the degrees of a scale. Each degree of the scale becomes the root for its related triad, and the triads are built by taking three alternate notes of the scale.

Major and minor chords consist of three different notes.

The **first, third and fifth** notes of the major scale make up a **Major chord**.

C Major scale: C D E F G A B C
 ↓ ↓ ↓
 C Major chord: C E G

The **first, third and fifth** notes of the natural minor scale make up a **minor chord**.

A Natural Minor: A B C D E F G A
 ↓ ↓ ↓
 A minor chord A C E

Here is the C major scale with all the triads that can be built upon each degree of the scale. This is known as **diatonic harmony**.

C major scale	Triad	Degree	Chord tones
<u>C</u> <u>D</u> <u>E</u> F G A B	C	I	C E G
C <u>D</u> <u>E</u> <u>F</u> G A B	Dm	ii	D F A
C D <u>E</u> <u>F</u> <u>G</u> A B	Em	iii	E G B
<u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>A</u> B	F	IV	F A C
C <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>A</u> <u>B</u>	G	V	G B D
<u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u> <u>A</u> B	Am	vi	A C E
C <u>D</u> <u>E</u> <u>F</u> <u>G</u> A <u>B</u>	B ^o	vii ^o	B D F

Notice that the triads on the first, fourth and fifth degrees are major, whilst the triads on the second, third and sixth degrees are minor and the triad on the seventh degree is diminished. All major keys have this – major, minor, minor, major, major, minor, diminished pattern of triads.

Note how the chord degrees in the table are written using roman numerals. This is a musical standard, with capital letters representing major and lower-case representing minor. The diminished is also lower case, as it has a minor third (see below), but it also uses the 'o' sign to indicate the lowered fifth.

Here is the A natural minor scale, with the triads that can be built on each degree of the scale:

A natural minor scale	Triad	Degree	Chord tones
<u>A</u> <u>B</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u>	Am	i	A C E
A <u>B</u> <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u>	B ^o	ii ^o	B D F
A B <u>C</u> <u>D</u> <u>E</u> <u>F</u> <u>G</u>	C	III	C E G
A B C <u>D</u> <u>E</u> <u>F</u> <u>G</u>	Dm	iv	D F A
A B C D <u>E</u> <u>F</u> <u>G</u>	Em	v	E G B
A B C D E <u>F</u> <u>G</u>	F	VI	F A C
A B C D E F <u>G</u>	G	VII	G B D

Notice that the triads on the first, fourth and fifth degrees are minor, the triads on the third, sixth and seventh degrees are major and the triad on the second degree is diminished. All natural minor keys have this – minor, diminished, major, minor, minor, major, major – pattern of triads.

Chord Symbols

The clearest symbol for a major chord is to just state the letter on its own e.g. C Major becomes simply 'C'. Major chords are very common, so we simply state them as a single letter.

To differentiate the minor from the major, we use a lower-case 'm' following the chord letter e.g. A minor becomes 'Am'.

Scale Degrees

In the same way that popular musicians often use numbers to talk about the notes in a scale, they often use numbers to talk about the notes in a chord. Each note in the chord is given a number, which refers to the scale degree from which that note is taken.

For example, C Major is numbered as follows:

C	E	G
1	3	5

C minor is numbered like this:

C	E _b	G
1	b3	5

In this example, rather than talking about the G note in the chord of C Major, popular musicians might refer to it as the 5th of the chord, as G is the 5th degree of the C major scale.

All major and minor chords are constructed using 1, 3 and 5 of their related scales.

Excercise 1:

What are the full names of these chords?

D	
Em	
Abm	
G	

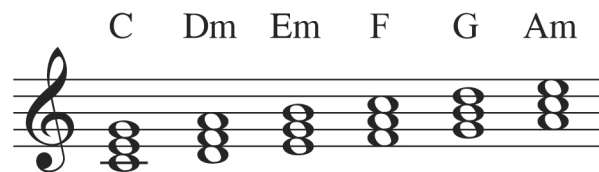
Excercise 2:

What are these chords?

E	G#	B	
D	F	A	
G	Bb	D	
C	Eb	G	

Chord Notation

Because all the notes in the chords happen at the same time, they are written above each other as follows:



Notice that in all major and minor root position triads, if the root note of the chord is on a line then the remaining notes of the triad occur on the two lines above, whereas if the root note of the chord is in a space then the remaining notes of the triad occur in the two spaces above.

Other Three Note Chords

There are other three note chord types that are used from time to time, though they are less common than major and minor.

Suspended chords

There are two types of suspended chord – the **suspended 4th** ('**sus4**', or sometimes just '**sus**' or '**4**') and the **suspended 2nd** ('**sus2**' or sometimes just '**2**').

In a **sus4** chord, the third is replaced by the fourth note of the major scale, with the same tonic. (1 4 5) For example:

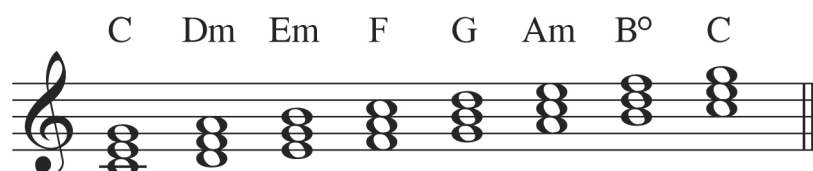
C major scale	C	D	E	F	G	A	B	C
C Major chord	C		E		G			
Csus4	C			F	G			

In a **sus2** chord, the third is replaced by the second note of the major scale with the same tonic. (1 2 5) For example:

C major scale	C	D	E	F	G	A	B	C
C Major chord	C		E		G			
Csus4	C			F	G			
Csus2	C	D			G			

Diminished Chords

Diminished chords naturally occur, built from the seventh note of the major scale. For example – B diminished shown here:



In a diminished chord the third is a minor interval, and the fifth is diminished (see *intervals*) (1 b3 b5). For example:

C major scale	C	D	E	F	G	A	B	C
C diminished chord	C		E ^b		G ^b			

Diminished chords are notated with '**dim**' e.g. Bdim, or with a '**degree**' sign e.g. B^o.

Augmented Chords

Augmented chords do not naturally occur in either major or minor scales. In an augmented chord the third is major, but the fifth is augmented (see *intervals*) (1 3 #5). For example:

C major scale	C	D	E	F	G	A	B	C
C augmented chord	C		E		G [#]			

Augmented chords are notated with '**aug**' e.g. Gaug, or with a plus sign e.g. G+.

Exercise 3:

Try working out the notes of the following chords:

Bdim _____ _____ _____

Eaug _____ _____ _____

Gsus4 _____ _____ _____

Fsus2 _____ _____ _____

Ebdim _____ _____ _____

Bbaug _____ _____ _____

5th 'power chords'

5th, '5', or 'power chords' are a chord type that has no third. In fact a power chord is made up of just the root and fifth (1 and 5), although the root is often doubled an octave higher to give a stronger sound. For example:

C major scale	C	D	E	F	G	A	B	C
C power chord	C				G			

If you choose to take the exam, you will be expected to include the octave when you write the notes of a power chord.

Power chords are normally written with a '5' following the root name, for example: C5

Exercise 4:

Have a go at writing the following chords (don't forget to add a clef):

Bb°	Aaug	Dsus2	F#m	Gsus4	Ab5	G+
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Fdim	C#5	Dbm	Esus2	B	Caug	Bb+
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Answers – Chords (Triads)

Ex1.

D	D Major
Em	E minor
Abm	A-flat minor or Ab minor
G	G Major

Ex2.

E	G#	B	E Major or E
D	F	A	D minor or Dm
G	B	D	G Major or G
C	E \flat	G	C minor or Cm

Ex3.

Bdim	B	D	F
Eaug	E	G#	B# (not C)
Gsus4	G	C	D
Fsus2	F	G	C
Ebdim	E \flat	G \flat	D \flat
Bbaug	B \flat	D	F#

Ex4.

Ex4. Musical notation showing two systems of chords in bass clef. The first system contains the following chords: B \flat $^\circ$, A $^+$, D(sus2), F \sharp m, G(sus4), A \flat 5, and G $^+$. The second system starts at measure 8 and contains: F $^\circ$, C \sharp 5, D \flat m, E(sus2), B, C $^+$, and B \flat $^+$.