FREE RESOURCE • COUNTING, BOOK ONE

Reading Time Signatures

WHAT THE TWO NUMBERS MEAN · AND HOW TO COUNT THEM



“The time signature tells you how to count. Everything else follows.”

START HERE

The Notes You Need

♫

A one-page refresher. This book is about counting, not about learning the notes — so here they all are, in one place, to point back to.

The seven values

Counted in quarter notes, because that is the note most time signatures are built around. Every number in this book is measured in these units.

NOTE	REST	NAME	QUARTERS
		**Whole**	4
	—	**Dotted half**	3
		**Half**	2
	—	**Dotted quarter**	1½
		**Quarter**	1
		**Eighth**	½
		**Sixteenth**	¼

Two rules worth carrying

A dot adds half again. A dotted note is worth the note plus half of itself, so a dotted quarter is a quarter plus an eighth.



A beam is a bundle, not a change. Joining fast notes with a beam never alters what they are worth. It groups them so you can see where the beats are — which is exactly what this book is about.



Rests are silences with a value

A rest is worth exactly what its matching note is worth; you simply stay quiet and keep counting. Keeping the count running through a rest is one of the things this book drills hardest, because it is where most players lose their place.

The two dotted rows show a dash because dotted rests, though they exist, are rare in beginner music: a dotted-half silence in the middle of a measure is normally written as a half rest plus a quarter rest. And when a whole measure is silent, you write a **whole rest** — whatever the time signature, and even in 3/4, where the measure is only three quarter notes long.

This page is the whole prerequisite. If these seven values and two rules look familiar, you are ready for every page that follows.

START HERE

What a Time Signature Tells You

♫

Two stacked numbers at the start of the music. They are not a fraction, and the bottom one is not a count.

Two numbers, two jobs

$\frac{4}{4}$

The top number counts. It tells you how many beats live in one measure. Four on top means four beats per measure.

The bottom number names. It tells you which note is worth one of those beats. It is not a count — it is a name, written as a number: 2 means the half note, 4 the quarter, 8 the eighth.

So 4/4 is read "four quarter-note beats in every measure." Read every time signature that way and most of the confusion disappears.

What the bottom number names

BOTTOM NUMBER	2	4	8
means this note			
called	half note	quarter note	eighth note

It behaves like the bottom of a fraction in one way only: the bigger the number, the shorter the note. That is about which note is written, not about speed — how fast to play is a separate instruction entirely.

Read it as a sentence

Every time signature can be read the same way: "*this many — beats of this note — in every measure.*" A measure can of course be filled with smaller notes; what the signature fixes is how much it holds.

WRITTEN	SAID OUT LOUD
$\frac{4}{4}$	4 quarter-note beats in every measure
$\frac{3}{4}$	3 quarter-note beats in every measure
$\frac{2}{4}$	2 quarter-note beats in every measure

One warning, kept for later. "The bottom number is the beat" is true for every meter in this book and the next one. It stops being true in compound meter, which is what Book Three is for.

START HERE

Counting Out Loud

♫

One set of words, used on every page of this book and in every answer key.

Say the beat numbers first

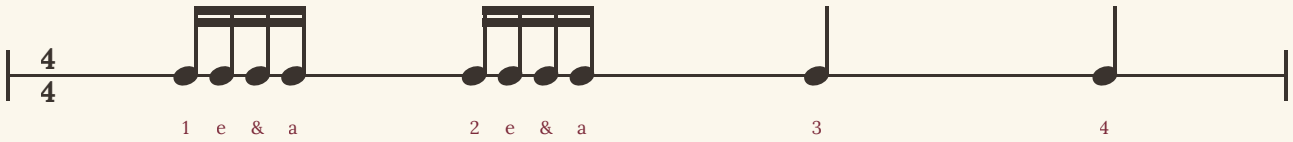
Counting out loud is the single most useful habit in rhythm. The numbers are the beats; everything faster gets a syllable that fits between them. Use the same words every time and your ear starts doing the work for you.



Then fill in between



Two per beat — say **and**, written &



Four per beat — **1 e & a**, said evenly

Keep counting through a rest

A rest gets a count like anything else. The number is still said; you simply do not play on it.



Say **1 2 3 & 4** out loud, but play only on 1, 3, & and 4.

Count out loud, not in your head. Saying it aloud forces an even beat in a way that thinking it never does.

START HERE

Three Simple Meters to Start

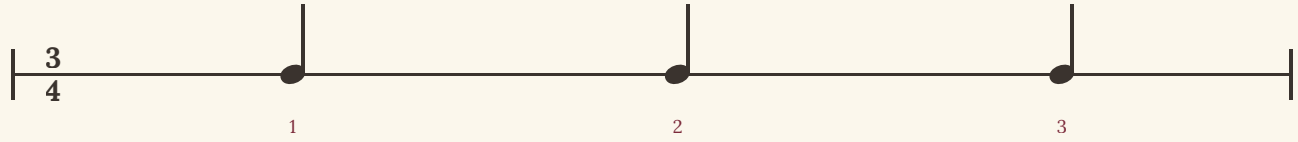
♫

Three time signatures that cover most of the music you will meet. In all three the beat splits neatly in two, which is what the word *simple* means here.

2/4 2 quarter-note beats in a measure, each splitting into 2 eighth notes



3/4 3 quarter-note beats in a measure, each splitting into 2 eighth notes



4/4 4 quarter-note beats in a measure, each splitting into 2 eighth notes



The same meters, with real rhythms

Plain quarter notes make the beat obvious. Here is what each meter looks like once the beats start dividing — the numbers still land in exactly the same places.



These three share one habit. In all three the quarter note gets the beat, so the counting words are identical — only how far you count before starting again changes.

START HERE

Strong and Weak Beats

♫

Why 4/4 and 2/4 are not the same thing, even when every note on the page is identical.

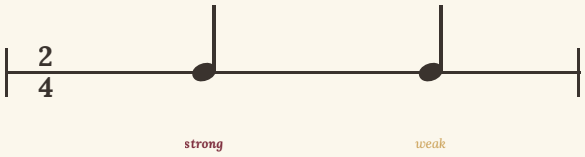
Not every beat is equal

Beat one is the strongest beat in any measure — it is called the **downbeat**, and it is what a conductor's hand points at on the way down. In four, beat three gets a smaller push of its own.

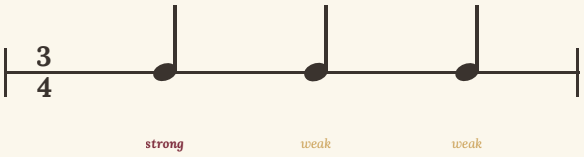


Natural stress is something you feel, not something written down — these words are here to describe the beats, and you will not see them printed in music.

2/4 strong · weak



3/4 strong · weak · weak



Why it matters

Play four even quarter notes in 2/4 and the strong beat lands every two: **STRONG** weak **STRONG** weak. Play the identical four in 4/4 and it lands every four, with a smaller push on beat three: **STRONG** weak *medium* weak. Same notes; you lean in different places.

The same trick turns a march into a waltz. Lean on every third clap instead of every second and you have 3/4 — still the same notes, still a different piece.

These stresses are built into the meter, so nobody writes them down. There are marks a composer can add to ask for a particular note to be leaned on, cut short or held full length — but those belong to a book about how music is played, not one about how it is counted.

GAME ONE

Count It Out

♫

Write the counting syllables under each note and each rest: the beat numbers, and **&**, **e** or **a** for anything in between. Watch the time signature on every line.

NAME _____ DATE _____

METER MAP · THE NOTE THAT GETS ONE BEAT, AND HOW MANY FIT

2/4 ♩ ×2 3/4 ♩ ×3 4/4 ♩ ×4

#1



#2



#3



#4



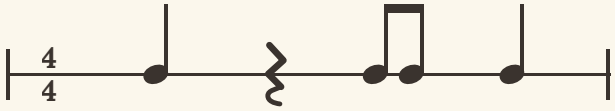
#5



#6



#7



#8



#9



#10



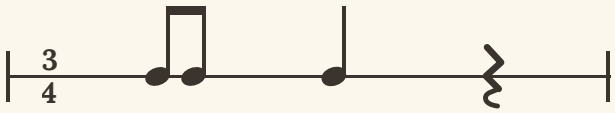
#11



#12



#13



#14



Say the whole measure out loud before you write anything. The count never stops just because the sound does — a rest gets a number like any note.

GAME TWO

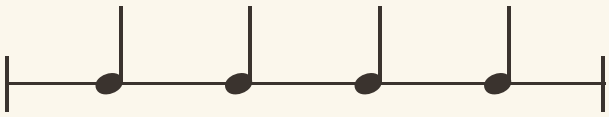
Name That Meter

♫

Each measure is complete but its time signature is missing. Work out how much music the measure holds, then circle the only time signature it could be.

NAME _____ DATE _____

#1



2/4 3/4 4/4

#2



2/4 3/4 4/4

#3



2/4 3/4 4/4

#4



2/4 3/4 4/4

#5



2/4 3/4 4/4

#6



2/4 3/4 4/4

#7



2/4 3/4 4/4

#8



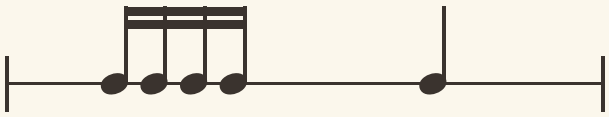
2/4 3/4 4/4

#9



2/4 3/4 4/4

#10



2/4 3/4 4/4

Add up the measure, then test each option. Work out how many quarter notes' worth the measure holds, then ask which time signature wants exactly that much. Only one of the three fits.

GAME THREE

Fill the Measure

♫

Every measure is one note short. Draw the single note that completes it, then write its name on the line.

NAME _____ DATE _____

METER MAP · THE NOTE THAT GETS ONE BEAT, AND HOW MANY FIT

2/4 ♩ ×2 3/4 ♩ ×3 4/4 ♩ ×4

#1



missing note: .....

#2



missing note: .....

#3



missing note: .....

#4



missing note: .....

#5



missing note: .....

#6



missing note: .....

#7



missing note: .....

Subtract, do not guess. Add up what is already in the measure, take it away from what the time signature asks for, and draw the note that is left. Exactly one note works every time.

Fill the Measure

♫

Seven more, with the time signature changing on every card. Same method: add up what is there, take it away from what the meter asks for, and draw what is left.

NAME _____ DATE _____

METER MAP · THE NOTE THAT GETS ONE BEAT, AND HOW MANY FIT

2/4 ♩ ×2 3/4 ♩ ×3 4/4 ♩ ×4

#1



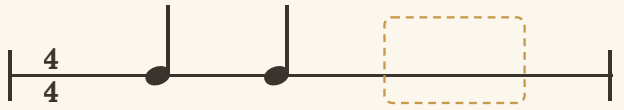
missing note: .....

#2



missing note: .....

#3



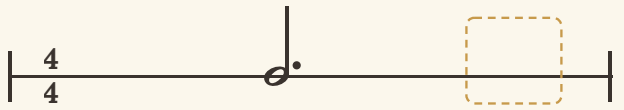
missing note: .....

#4



missing note: .....

#5



missing note: .....

#6



missing note: .....

#7



missing note: .....

Some of these are missing a dotted note. If the gap does not match any plain note value, try adding a dot to the next one down — a dot adds half the note again.

GAME FOUR

Spot the Broken Measure

♫

Some of these measures do not add up to what their time signature asks for. For every card, write what the measure holds and what it needs, then tick whichever box is true.

NAME _____ DATE _____

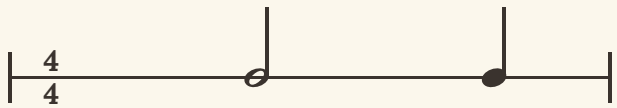
#1



holds _____ needs _____

☐ correct ☐ broken

#2



holds _____ needs _____

☐ correct ☐ broken

#3



holds _____ needs _____

☐ correct ☐ broken

#4



holds _____ needs _____

☐ correct ☐ broken

#5



holds _____ needs _____

☐ correct ☐ broken

#6



holds _____ needs _____

☐ correct ☐ broken

#7



holds _____ needs _____

☐ correct ☐ broken

#8



holds _____ needs _____

☐ correct ☐ broken

Measure in quarter notes. Write how many quarter notes the measure actually holds, then how many it needs. Some of these are already correct.

In Your Own Words

♫

No notes to draw on this page — just sentences. Explaining an idea is the surest way to find out whether you really have it.

NAME _____ DATE _____

Explain it

#1 A friend has never seen a time signature before. In your own words, tell them what the **top** number is for.

#2 Now tell them what the **bottom** number is for, and why it is not a count.

#3 4/4 and 2/4 can contain exactly the same notes. Explain what makes them sound different.

Finish the sentence

#1 In 3/4 there are _____ beats in a measure, and the note that gets one beat is the _____ note.

#2 The strongest beat in any measure is beat _____, which is called the _____.

#3 In 2/4 a measure holds _____ quarter notes' worth of music; in 4/4 it holds _____.

#4 When there is a rest, you still say the _____, but you do not _____.

Spot the mistake

#1 Sam is counting a piece in 3/4 and writes this under the first measure. Write what has gone wrong.

> "1 & 2 & 3 & 4 &"

#2 Ravi says the bottom number of a time signature tells you how fast to play. Write what you would tell him.

> *"It says 8 on the bottom, so it must be a fast piece."*

FOR THE TEACHER

Answer Key

♫

Game One · Count It Out

#1 4/4 1 2 3 & 4
#2 4/4 1 3 & 4
#3 3/4 1 2 & 3
#4 4/4 1 e & a 2 3
#5 2/4 1 & 2
#6 3/4 1
#7 4/4 1 2 3 & 4
#8 4/4 1 & 2 3 e & a 4
#9 3/4 1 2 3 &
#10 2/4 1 2 e & a
#11 4/4 1 2 3 & 4
#12 4/4 1 2 & 3 4 e & a
#13 3/4 1 & 2 3
#14 4/4 1 4

Game Two · Name That Meter

#1 4/4 — measure holds 4
#2 3/4 — measure holds 3
#3 2/4 — measure holds 2
#4 3/4 — measure holds 3
#5 2/4 — measure holds 2
#6 3/4 — measure holds 3
#7 2/4 — measure holds 2
#8 4/4 — measure holds 4
#9 3/4 — measure holds 3
#10 2/4 — measure holds 2

Game Three · Fill the Measure

#1 quarter note (4/4)
#2 quarter note (3/4)
#3 quarter note (4/4)
#4 quarter note (2/4)
#5 quarter note (3/4)
#6 half note (4/4)
#7 quarter note (3/4)

Continued

#1 quarter note (2/4)
#2 quarter note (3/4)
#3 half note (4/4)
#4 dotted half note (4/4)
#5 quarter note (4/4)
#6 half note (4/4)
#7 dotted half note (4/4)

Game Four · Spot the Broken Measure

#1 correct (4/4, holds 4)
#2 broken (4/4: holds 3, needs 4 — −1)
#3 correct (3/4, holds 3)
#4 correct (2/4, holds 2)
#5 broken (3/4: holds 4, needs 3 — +1)
#6 broken (4/4: holds 4½, needs 4 — +½)
#7 correct (4/4, holds 4)
#8 broken (2/4: holds 3, needs 2 — +1)

Lengths are given in quarter notes.

FOR THE TEACHER

Answer Key — The Writing Page

♫

The writing page

Explain it — answers vary. Look for: the top number counts the beats in a measure; the bottom number names which note is worth one beat, so it is a name written as a number, not a count; and 4/4 and 2/4 differ because the strong beat lands every four rather than every two.

Finish the sentence

#1 three; quarter
#2 one; downbeat
#3 2; 4
#4 number; play

Spot the mistake — 1. There is no beat 4 in 3/4; the count should stop at “3 &” and start again at 1. 2. The bottom number names a note, not a speed. An 8 means the eighth note gets the beat; how fast to play is a separate instruction.

REFERENCE

Everything on One Page

♫

The three meters in this book

TIME	BEATS	BEAT	WHICH IS A	COUNTED
2/4	2	♩	quarter note	1 e & a 2 e & a
3/4	3	♩	quarter note	1 e & a 2 e & a 3 e & a
4/4	4	♩	quarter note	1 e & a 2 e & a 3 e & a 4 e & a

How to read any time signature

Top number — how many beats in a measure.
Bottom number — which note is worth one beat. 2 is the half note, 4 the quarter, 8 the eighth.

Say it as a sentence: *four quarter-note beats in every measure.*

A measure is also called a **bar** — the two words mean the same thing, and you will meet both.

The counting words

1 e & a — the numbers are the beats, **&** is halfway between two of them, and **e** and **a** are the points either side of the **&**.

A rest is counted like anything else. You say the number and stay quiet.

For the teacher

The START HERE pages are reference, not homework. Read them together once and leave them open. Everything the games ask for is on them.

Count out loud, every time. Every game here is arithmetic on paper, but the answer only sticks once it has been said at a steady beat. Say the measure, then write it.

Sequence. The reference pages and Count It Out make a first session; Name That Meter and Fill the Measure a second; Spot the Broken Measure and the writing page a third. The writing page is the one that shows whether it has really landed.

Next. Book Two adds the other bottom numbers, cut time, pickup notes and ties. Book Three is compound meter, where the beat splits in three.



Once you know where beat one is, everything else has somewhere to be.

Take any piece of music you own and read only the time signature before you play a note. How many beats in a measure, and which note gets one? Two questions, every time, until you stop having to ask them.

