FREE RESOURCE • COUNTING, BOOK TWO

Pickups, Ties and Cut Time

THE BOTTOM NUMBER · MUSIC THAT STARTS EARLY · HOLDING ACROSS A BARLINE



“A barline is a place to count, not a wall the sound stops at.”

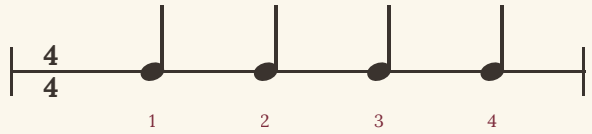
START HERE

What You Already Know

A page to check against before you begin. If any of this is unfamiliar, Book One covers it.

Reading a time signature

Top number — how many beats in a measure.
Bottom number — which note is worth one of those beats.



Four quarter-note beats in every measure, counted 1 2 3 4.

The counting words

The numbers are the beats. **&** is halfway between two of them; **e** and **a** are the points either side of it.



And three note values this book leans on

the half note — 2 quarter notes

the dotted half — 3 quarter notes

the whole note — 4 quarter notes

Cut time counts in half notes, and a tie will often add up to one of these, so they are worth having at your fingertips.

Nothing here is new. If this page reads easily you are ready; if it does not, Book One is the place to start.

START HERE

The Bottom Number at Work

♫

What changes when the bottom number changes — and the two time signatures that get their own symbol.

Two beats, written three ways

Each line below is two beats long. Only the bottom number changes, so only the *note* that carries the beat changes. Counted aloud, all three are identical: **1 2**.



beat = half note



beat = quarter note



beat = eighth note

Which note is written depends on what the composer chose. It says nothing about how fast the music goes; tempo is a separate instruction.

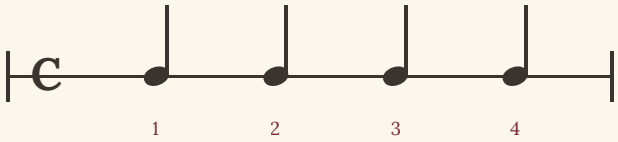
Common time and cut time

Two time signatures are so common they have their own symbols, and you will meet both constantly.

C

Common time

Another way of writing 4/4 — four quarter-note beats.

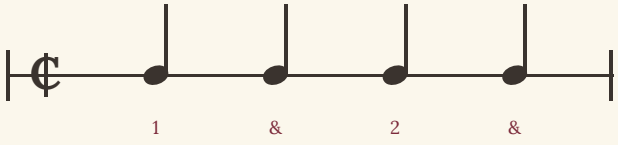


¢

Cut time

Another way of writing 2/2 — the same measure, felt in two.





Quarter notes in cut time fall on the beat and the **&**

Cut time is a feel, not a trick. A 2/2 measure holds exactly as much as a 4/4 measure — four quarter notes' worth. The difference is that you count it in two broad beats instead of four, which is why marches and fast pieces use it.

START HERE

The Top Number at Work

♫

More time signatures, and no new rule — the bottom still names the beat, and the top still counts how many.

Same two questions, new pairs

Once you can read the bottom number, every other time signature in this book reads the same way: the bottom names the beat, the top counts how many. Nothing new to learn — only new pairs.

WRITTEN	MEANS
$\frac{3}{2}$	3 half-note beats in a measure, each splitting into 2 quarter notes
$\frac{4}{2}$	4 half-note beats in a measure, each splitting into 2 quarter notes
$\frac{4}{8}$	4 eighth-note beats in a measure, each splitting into 2 sixteenth notes
$\frac{3}{8}$	3 eighth-note beats in a measure, each splitting into 2 sixteenth notes
$\frac{5}{4}$	5 quarter-note beats in a measure, each splitting into 2 eighth notes

5/4 is the odd one: five beats will not split evenly into equal groups, so it is usually felt as 3 + 2 or 2 + 3. Count it straight through as **1 2 3 4 5** and that will do for now.

None of these is a special case. Read the bottom number first to find the beat, then the top number to count them. That works for every time signature in this book. There is exactly one family where it stops working — compound meter, where the bottom number names the *division* instead of the beat — and Book Three is about that.

START HERE

Pickup Notes

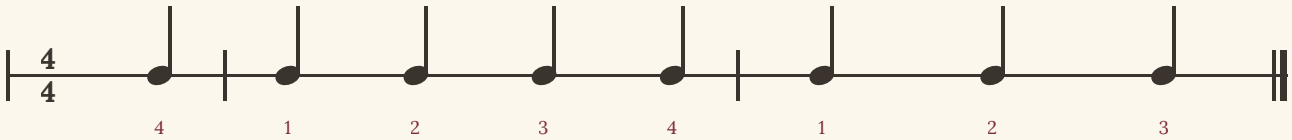
♫

The short measure before the first full one — what to call it, and why the last measure of a piece looks wrong until you know about it.

Music that starts early

Not every piece begins on beat one. A **pickup** is a short incomplete measure at the very start — one or two notes leading into the first full measure. You hear them constantly: *Happy Birthday* starts with one.

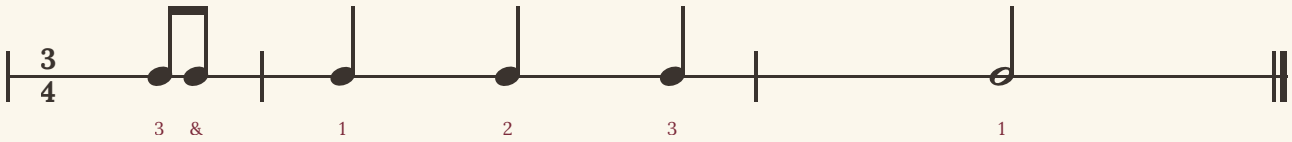
The trick is knowing what to count. A pickup is measured from the *end* of a measure backwards, so a single quarter-note pickup in 4/4 is beat four, not beat one.



Count the pickup as "4", then the first full measure as 1 2 3 4. Notice the last measure: it is one beat short, because the pickup already used that beat.

The borrowed beat

In properly written music the pickup and the final measure add up to one complete measure between them. The pickup borrows from the end, and the end pays it back.



A two-eighth pickup in 3/4 fills the whole of beat three, so you count **3 &**. It is worth one beat, so the final measure is one beat short: a half note where a full measure would hold three beats.

Find the downbeat first. When you meet an unfamiliar piece with a pickup, work out which beat the first note lands on before you play a thing. Count backwards from the barline: the note just before it is the last beat of the measure.

START HERE

Ties Across the Barline

♫

How a note keeps sounding past the end of a measure, and why that is the only way to write it.

One sound, two notes long

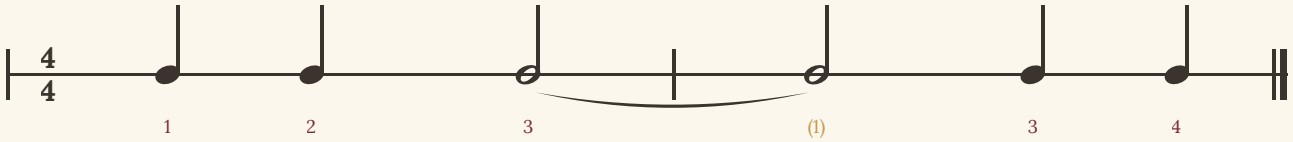
A **tie** is a curved line joining two notes. You play the first and hold it through the second — one sound, lasting as long as both added together. The count keeps running underneath, but you do not play again.



Counts in brackets are beats you count but do not play. Here you play on 1 and 2, hold through 3, and play again on 4.

Crossing the barline

This is what ties are really for. A note cannot be written across a barline, so when a sound needs to continue into the next measure you write two notes and tie them. The barline is still there; the sound simply ignores it.

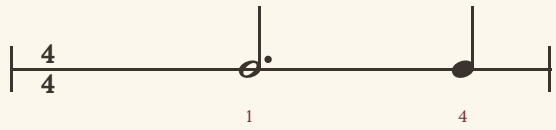


The tied note starts on beat 3 and is held for four beats in total — through the barline, through beats 1 and 2 of the next measure.

Why not just use a dot?

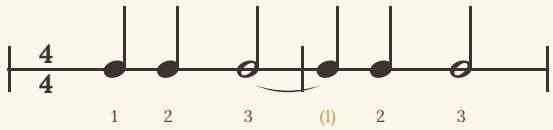
A dot and a tie both make a note longer, and where a dot will do the job a dot is tidier. But a dot can only ever add half the note again, and it cannot reach across a barline. A tie can join any two lengths, anywhere.

A dot can do this



Three beats held, written with one dot.

Only a tie can do this



A sound crossing the barline.

Keep counting through the hold. The most common tie mistake is losing the beat while the note rings. Say every count out loud, including the bracketed ones — just do not play them.

GAME ONE

Pickup Patrol

♫

Each line begins with a pickup. Work out which count it starts on, and how long the final measure of the piece would have to be to balance it.

NAME _____ DATE _____

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

2/4 ♩ ×2 3/4 ♩ ×3 4/4 ♩ ×4 2/2 𝅗𝅥 ×2

#1



starts on _____ last measure holds _____ quarter notes' worth

#2



starts on _____ last measure holds _____ quarter notes' worth

#3



starts on _____ last measure holds _____ quarter notes' worth

#4



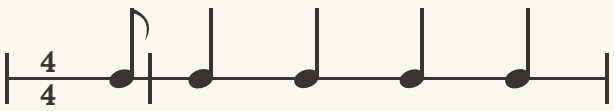
starts on _____ last measure holds _____ quarter notes' worth

#5



starts on _____ last measure holds _____ quarter notes' worth

#6



starts on _____ last measure holds _____ quarter notes' worth

#7



starts on _____ last measure holds _____ quarter notes' worth

#8



starts on _____ last measure holds _____ quarter notes' worth

The pickup is never beat one. That is the whole point of it — the music arrives at beat one, it does not start there. Measure backwards from the barline, and give the last measure whatever the pickup borrowed.

GAME TWO

Tie Breaker

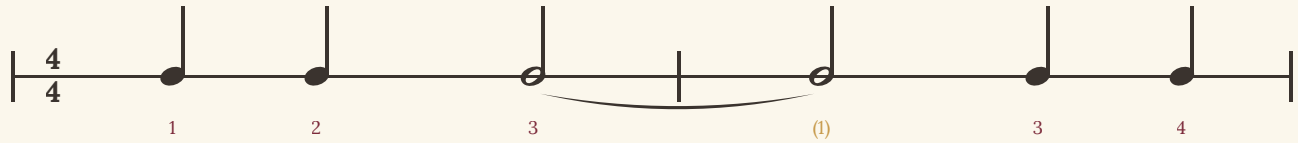
♫

Each line has one tie. Work out how long the tied note is held altogether, counted in the beats of that time signature.

NAME _____ DATE _____

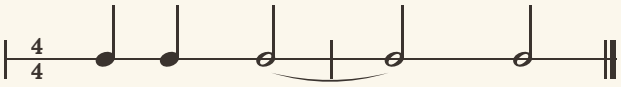
How to work one out

Add the two tied notes together to get the total length, then ask how many beats of *this* meter that is. The second step is the one people skip.



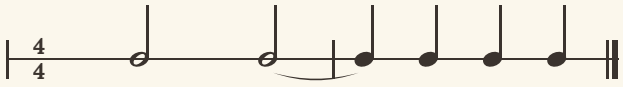
Half note plus half note is four quarter notes' worth. In 4/4 a quarter note is one beat, so the answer is **4 beats**.

#1



held for _____ beats of 4/4

#2



held for _____ beats of 4/4

#3



held for _____ beats of 3/4

#4



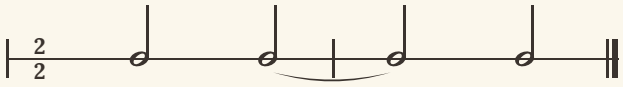
held for _____ beats of 4/4

#5



held for _____ beats of 2/4

#6



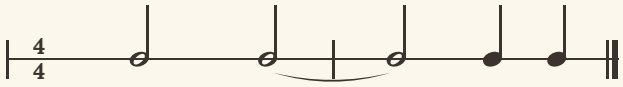
held for _____ beats of 2/2

#7



held for _____ beats of 3/4

#8



held for _____ beats of 4/4

#9



held for _____ beats of 2/4

#10



held for _____ beats of 3/4

GAME THREE

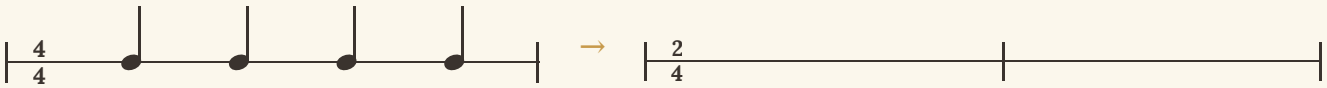
Re-bar It

♫

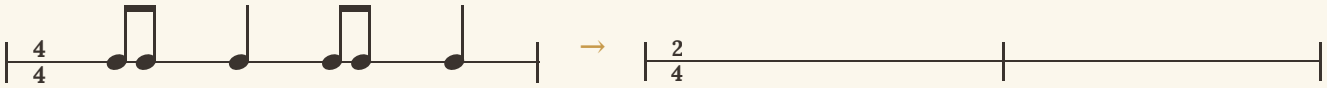
The same rhythm, written in a new time signature. Copy the notes onto the empty staff, filling each measure before you move past its barline.

NAME _____ DATE _____

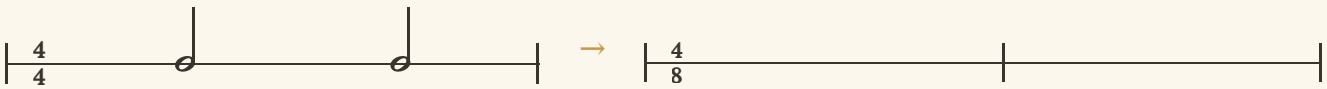
#1



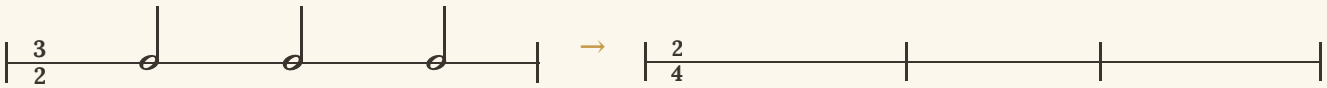
#2



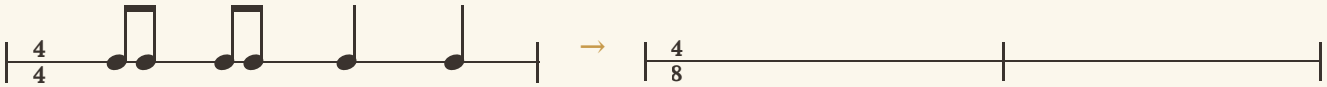
#3



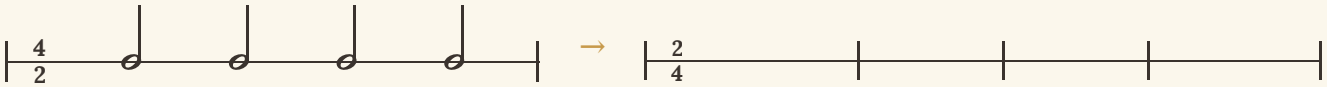
#4



#5



#6



The note values do not change — the barlines move. Write the same notes in the same order, stopping at each barline when that measure is full. The number of empty measures tells you how many the rhythm needs.

GAME FOUR

Counting in Cut Time

♫

Three short jobs, all in cut time. Count the first two lines, draw the missing note in the next five, then check the last four measures against what cut time asks for.

NAME _____ DATE _____

Write the counts underneath

#1



#2



Draw the missing note

#1



missing note: .....

#2



missing note: .....

#3



missing note: .....

#4



missing note: .....

#5



missing note: .....

Correct or broken?

Measure in quarter notes: a cut-time measure needs four.

#1



holds ..... needs .....

☐ correct ☐ broken

#2



holds ..... needs .....

☐ correct ☐ broken

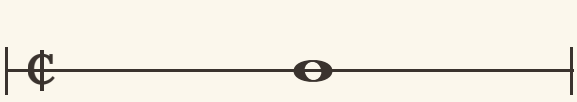
#3



holds ..... needs .....

☐ correct ☐ broken

#4



holds ..... needs .....

☐ correct ☐ broken

GAME FIVE

Name That Meter

♫

Each measure is complete but its time signature is missing. Add it up in quarter notes, then circle the only time signature that wants exactly that much. These all use the bottom numbers from this book.

NAME _____ DATE _____

#1



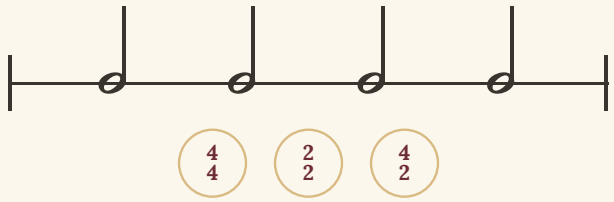
2/4 3/4 2/2

#2



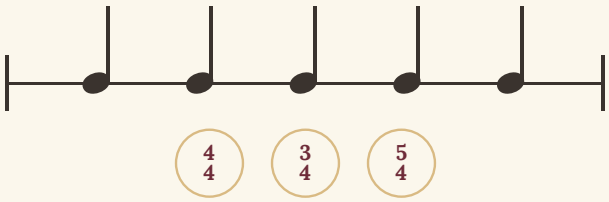
3/8 2/4 3/4

#3



4/4 2/2 4/2

#4



4/4 3/4 5/4

Remember what the bottom number does

4/4 and 2/2 hold exactly the same amount — four quarter notes' worth — so length alone can never separate those two. Where both are offered, one of them is ruled out because the measure is not four quarter notes long at all. Add up first, and only one choice on each card will survive.

Work in quarter notes. A cut-time measure wants four of them, a 3/4 measure three, a 2/4 measure two. Convert first, then compare.

WRITE IT DOWN

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 What is a **pickup**, and why is its first note never beat one?

#2 A tie and a dot both make a note longer. Describe one thing a tie can do that a dot cannot.

#3 A 2/2 measure and a 4/4 measure hold the same amount of music. Explain what is different about them.

Finish the sentence

#1 In cut time the beat is the _____ note, and there are _____ beats in a measure.

#2 If a piece in 4/4 opens with a one-beat pickup, the final measure should hold _____ beats.

#3 A tie joins two notes into _____.

#4 A dot adds _____ of the note again.

Spot the mistake

#1 Mia is counting a 4/4 piece that begins with a one-quarter pickup. Write what has gone wrong.

> *"I counted the first note as beat 1, then the next measure as 2 3 4 1."*

#2 Theo sees a tie across a barline. Write what you would tell him.

> *"There are two notes written, so I played it twice."*

FOR THE TEACHER

Answer Key

♫

Game One · Pickup Patrol

#1 starts on count 4 (counted 4; last measure holds 3 quarter notes' worth)
#2 starts on count 3 (counted 3; last measure holds 2 quarter notes' worth)
#3 starts on count 4 (counted 4 &; last measure holds 3 quarter notes' worth)
#4 starts on the & of beat 2 (counted &; last measure holds 1½ quarter notes' worth)
#5 starts on count 3 (counted 3 4; last measure holds 2 quarter notes' worth)
#6 starts on the & of beat 4 (counted &; last measure holds 3½ quarter notes' worth)
#7 starts on count 3 (counted 3 &; last measure holds 2 quarter notes' worth)
#8 starts on the & of beat 2 (counted &; last measure holds 3 quarter notes' worth)

Game Two · Tie Breaker

#1 4 beats of 4/4 (4 quarter notes' worth)
#2 3 beats of 4/4 (3 quarter notes' worth)
#3 4 beats of 3/4 (4 quarter notes' worth)
#4 2 beats of 4/4 (2 quarter notes' worth)
#5 3 beats of 2/4 (3 quarter notes' worth)
#6 2 beats of 2/2 (4 quarter notes' worth)
#7 2 beats of 3/4 (2 quarter notes' worth)
#8 4 beats of 4/4 (4 quarter notes' worth)
#9 2 beats of 2/4 (2 quarter notes' worth)
#10 5 beats of 3/4 (5 quarter notes' worth)

Game Four · Counting in Cut Time

Lengths are in quarter notes; + means the measure is over, − that it is short.

Counts

#1 1 2 &
#2 1 & 2 &

Missing notes

#1 half note
#2 quarter note
#3 quarter note
#4 quarter note
#5 half note

Correct or broken

#1 broken (holds 3, needs 4 — −1)
#2 correct (holds 4)
#3 broken (holds 5, needs 4 — +1)
#4 correct (holds 4)

Game Five · Name That Meter

#1 2/2 — holds 4
#2 3/8 — holds 1½
#3 4/2 — holds 8
#4 5/4 — holds 5

FOR THE TEACHER

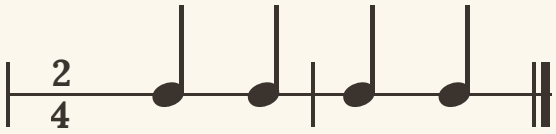
Answer Key — Re-bar It

♫

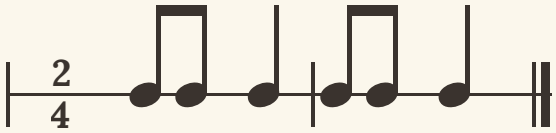
Game Three · Re-bar It

The rhythm as it should look once it is re-barred. Note values never change; the barlines move, and where eighth notes are involved the beams regroup to match the new beat.

#1 2 measures of 2/4 (rhythm is 4; a 2/4 measure holds 2)



#2 2 measures of 2/4 (rhythm is 4; a 2/4 measure holds 2)



#3 2 measures of 4/8 (rhythm is 4; a 4/8 measure holds 2)



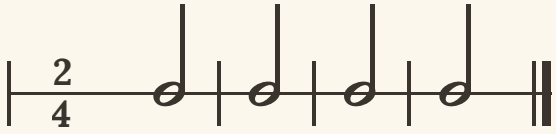
#4 3 measures of 2/4 (rhythm is 6; a 2/4 measure holds 2)



#5 2 measures of 4/8 (rhythm is 4; a 4/8 measure holds 2)



#6 4 measures of 2/4 (rhythm is 8; a 2/4 measure holds 2)



FOR THE TEACHER

Answer Key — The Writing Page

♫

The writing page

Explain it — answers vary. Look for: a pickup is a short incomplete measure before the first full one, counted backwards from the end of a measure, so it is never beat one; a tie can carry a sound across a barline and a dot cannot; and a 2/2 measure holds the same music as a 4/4 one but is counted in two broad beats.

Finish the sentence

#1 half; two
#2 three
#3 one longer sound
#4 half

Spot the mistake — 1. A pickup is never beat one. A one-quarter pickup in 4/4 is beat four, so the count runs 4, then 1 2 3 4. **2.** A tie means play the first note and hold it through the second — one sound, not two.

REFERENCE

Everything on One Page

♫

The bottom number

WRITTEN	THE BEAT IS
$\frac{2}{2}$	half note, 2 per measure
$\frac{2}{4}$	quarter note, 2 per measure
$\frac{3}{4}$	quarter note, 3 per measure
$\frac{4}{4}$	quarter note, 4 per measure
$\frac{3}{8}$	eighth note, 3 per measure
$\frac{4}{8}$	eighth note, 4 per measure
$\frac{3}{2}$	half note, 3 per measure
$\frac{4}{2}$	half note, 4 per measure
$\frac{5}{4}$	quarter note, 5 per measure

And two symbols worth knowing: **C** is 4/4, and a C with a vertical stroke through it is cut time, 2/2.

Pickups and ties

A pickup is counted backwards from the end of a measure, so it is never beat one. Pickup plus final measure makes one complete measure.

A tie joins two notes into one sound as long as both together. Count every beat underneath it; play only the first.

A dot adds half the note again. It cannot cross a barline — only a tie can.

For the teacher

The START HERE pages are reference, not homework. Read them together once and leave them open.

Sequence. The bottom number and cut time make a first session with Game Four; pickups and Pickup Patrol a second; ties and Tie Breaker a third. Name That Meter works any time once the bottom number is secure, and makes a good warm-up. Re-bar It is the hardest thing here and is worth saving until the rest is comfortable.

The two mistakes to expect. Counting a pickup as beat one, and re-playing the second half of a tie. Both are cured by saying the counts out loud and playing only some of them.

Next. Book Three is compound meter — 6/8, 9/8 and 12/8, where the beat splits into three instead of two.



A barline is a place to count, not a wall the sound stops at.

Look through any piece you are playing for a tie that crosses a barline, and for a pickup at the very start. Once you have spotted a few, you will stop being surprised by them.

