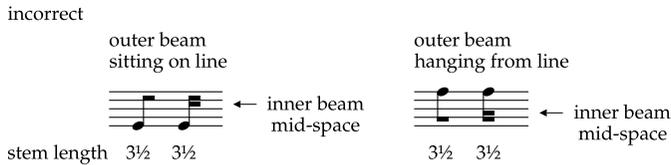


When notes are on a line, the stem is shortened to  $3\frac{1}{4}$  spaces:



This prevents the inner beam from being incorrectly placed when it is added:



#### ADDITIONAL BEAMS

The outer beam moves further away from the notehead to allow space for additional beams. Beams should never be closer to the notehead than the correct position of the semiquaver beam ( $2\frac{1}{2}$  spaces). Extend stems for the additional beams:



#### NOTES ON LEDGER LINES

There must be one clear staff-line between the innermost beam and the first ledger line:



## Angled beams

#### DEGREE OF BEAM ANGLE

The angle of beams gives individual character to a page of printed music. Different music setters may use slightly different angles.

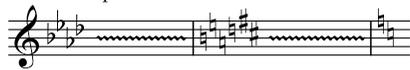
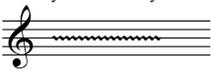
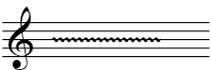
Beam angles should not deviate far from the horizontal because the eye perceives duration on the horizontal plane. Usually, they cross no more than one staff-line. Thus the wider the interval, the more flattened the beam angle becomes in relation to the size of the interval:



When a key change coincides with a system break, the cancelling naturals and the new key signature go at the end of the first system. The new system takes only the new key signature (see following example).

#### CONTEMPORARY PRACTICE

At a key change use only the new key signature. This gives a simpler result. A previous key signature requires cancelling with naturals only when the new section has no key signature:

<p>traditional practice</p> 	<p>new system in key of C major</p> 
<p>contemporary practice</p> 	

### Simultaneous key and clef change

Place the new clef before the barline, the new key signature after the barline (and in the new clef):



## Key signatures in non-tonal or polytonal music

Key signatures may be used to minimize repeated accidentals in any passage or movement that consistently uses the same accidental pitches.

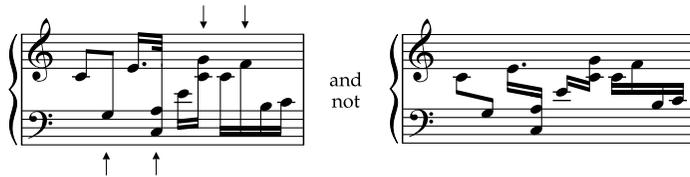
#### CONVENTIONAL KEY SIGNATURES

In an ensemble work, an instrument may take its own key signature. (Stravinsky makes use of key signatures for individual instruments or selected sections of the orchestra in works such as *L'Oiseau de Feu*, *Chant du Rossignol*, and *Jeu de Cartes*. Holst also does so in *The Planets*.)

Harp music is written enharmonically according to its pedal settings and may use a completely different or enharmonically equivalent key to the rest of the ensemble (see *Key signatures*, p. 354).

## PITCHES CLOSE TO THE CENTRE OF THE SYSTEM

Place stems in one direction when pitches are close to the middle of the system and the staves cannot be moved further apart due to space constraint:



To use a double-stemmed beam, the staves must be far enough apart to give adequate length (at least  $2\frac{1}{2}$  stave-spaces) to all stems.

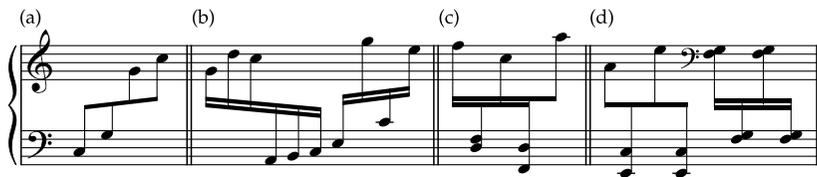
## Double-stemmed beams

Stems for groups of beamed notes that span both staves point towards the centre of the system and are joined by a common beam.

## BEAM POSITION

Position a beam so that the shortest stems in both directions are of equal length. For clarity, keep beams clear of the staves where possible. Horizontal beams, in particular, are hard to read against stave lines and should be placed in the space between the staves, even if this results in unequal stem lengths (see first example, (b), p. 325).

For beam direction, the most important consideration is to help the eye follow the contour of the pitches. Slope the beam if the intervals of a group go in one direction (a); otherwise, reflect the interval of the outside notes (b). A beam should remain horizontal where a slope in the direction of the outside pitches contradicts the direction of the majority of notes (c), and where there is no overall change in contour (d):



These guidelines follow the principles of beam direction (see *Direction of beam angle*, p. 22). If in doubt use a horizontal beam, as this is the most conducive angle for enabling the eye to travel forward with the passage-work.

(For double-stemmed grace-note groups, see *Placing diagonal lines on grace-note groups*, p. 126.)

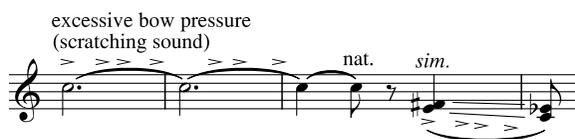
## Bow pressure

### FLAUTANDO

*Flautando* ('flute-like') indicates a fast and lightly drawn bow that produces a transparent or flute-like sound. *Ord.*, *nat.*, or *norm.* may cancel the term, if required.

### EXCESSIVE PRESSURE

The bow sticks to, or scratches, the string to produce predominantly extraneous noises and overtones. A verbal instruction should explain the technique, such as 'press bow firmly on string to produce scratching noise'. No special notation is required although a series of accents may be added after the note to convey the sense of uneven sound production:



A filled-in wedge placed above the staff indicates the gradation of bow pressure in a graphic way:

Harvey: *Advaya*

A musical staff for Cello in treble clef. The staff contains a glissando line starting from a sharp sign (#) and ending at a natural sign (♮). Above the staff, there are two wedges: a large one labeled 'distort' and a smaller one labeled '9"'. A bracket above the staff spans from the start of the glissando to the end of the '9"' wedge, with '9"' written above it. Another bracket above the staff spans from the end of the '9"' wedge to the end of the glissando, with '7"' written above it. The word 'arco' is written above the staff, and '(9)' is written below it. The word 'ff gliss. with vibrato' is written below the staff. The word 'dim.' is written below the staff. A legend below the staff indicates 'x = approx. pitch'.

(See also *Symbols to replace repeated techniques*, p. 494.)

## With the wood of the bow

The term *col legno battuto* (abbrev. *col legno batt./c.l. batt./c.l.b.*) indicates tapping the string with the wood of the bow. It is often abbreviated to *col legno*. This technique is usually accompanied by staccato dots or wedges, and produces a staccato.

The term *col legno tratto* (abbrev. *c.l.t.*) indicates drawing the wood of the bow across the string.

The term *poco col legno* or  $\frac{1}{2}$  *col legno* indicates using both the hair and the wood of the bow on the string simultaneously.