Here are C major, C Natural / Pure Minor, C Harmonic Minor, and C Melodic Minor. Whole steps are marked with a "w"; half steps are marked with "1/2". In C Harmonic Minor there is an augmented second. It's a second with three half steps.

Major

Natural / Pure Minor
Harmonic Minor

Melodic Minor
The key signature shows how many sharps and flats are required to maintain the whole step and half step structure of the major and minor scales above, starting on any note:

Notice that the sharps and flats are always placed in a specific location on each staff and are placed in a specific order.

- the key signature of C major and a minor has no sharps or flats

- the key signature of G major and e minor has one sharp (F sharp)

- the key signature of D major and b minor has two sharps (F sharp and C sharp)

- the key signature of A major and f sharp minor has three sharps (F sharp, C sharp, and G sharp)
- the key signature of E major and c sharp minor has four sharps
  (F sharp, C sharp, G sharp, and D sharp)

- the key signature of B major and g sharp minor has five sharps
  (F sharp, C sharp, G sharp, D sharp, and A sharp)

- the key signature of F sharp major and d sharp minor has six sharps
  (F sharp, C sharp, G sharp, D sharp, A sharp, and E sharp)

- the key of C sharp major and a sharp minor has seven sharps
  (F sharp, C sharp, G sharp, D sharp, A sharp, E sharp, and B sharp)
- the key signature of F major and d minor has one flat (B flat)

- the key signature of B flat major g minor has two flats (B flat and E flat)

- the key signature of E flat major and e minor has three flats (B flat, E flat, and A flat)

- the key signature of A flat major f minor has four flats (B flat, E flat, A flat, and D flat)
- the key signature of D flat major and b flat minor has five flats (B flat, E flat, A flat, D flat, and G flat)

- the key signature of G flat major and e flat minor has six flats (B flat, E flat, A flat, D flat, G flat and C flat)

- the key of C flat major and a flat minor has seven flats (B flat, E flat, A flat, D flat, G flat, C flat, and F flat)