

**Mandibular first molar**

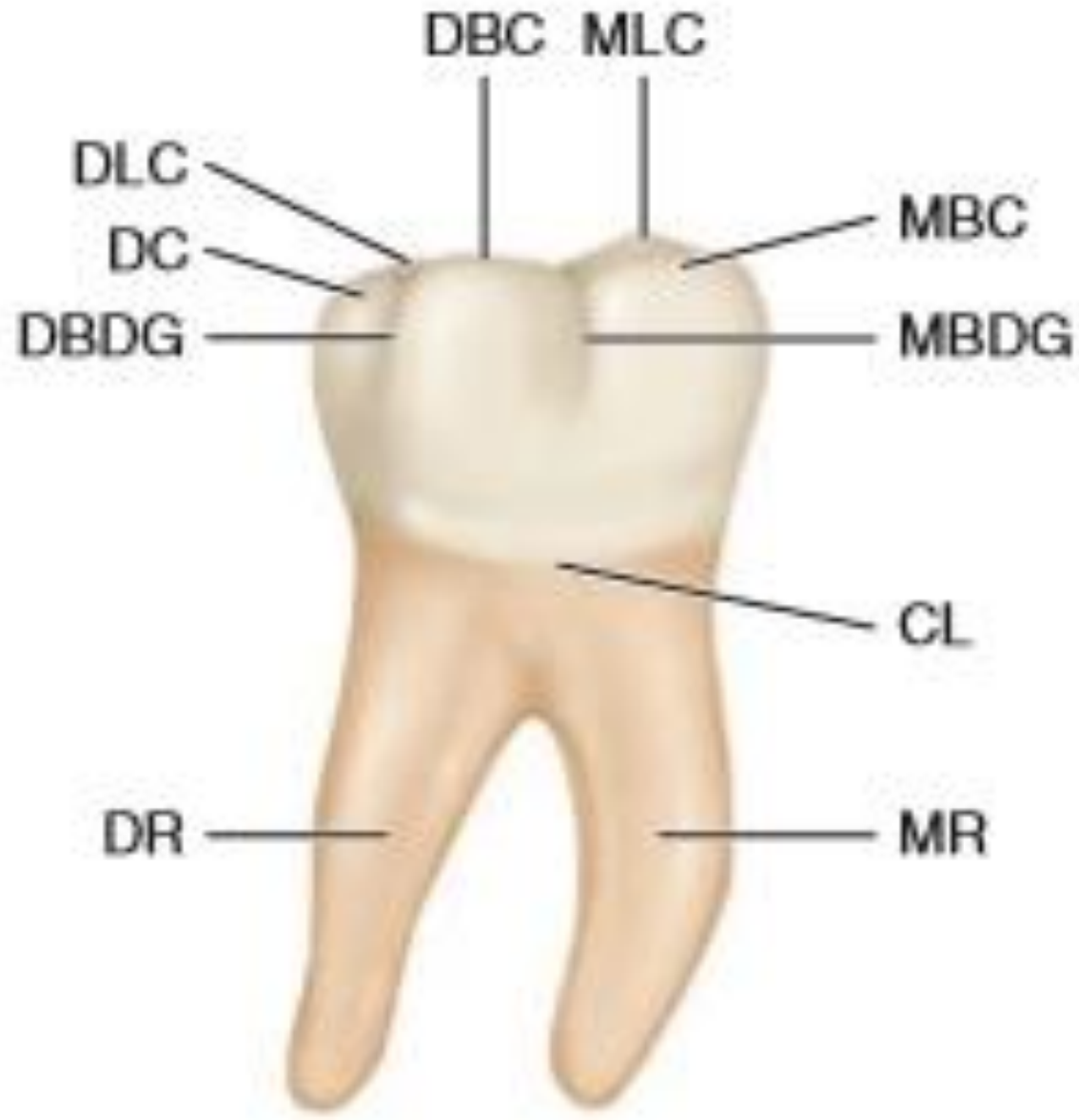
# Mandibular first molar

- It is the sixth mandibular tooth from the median line
- It is the largest tooth in the mandibular arch



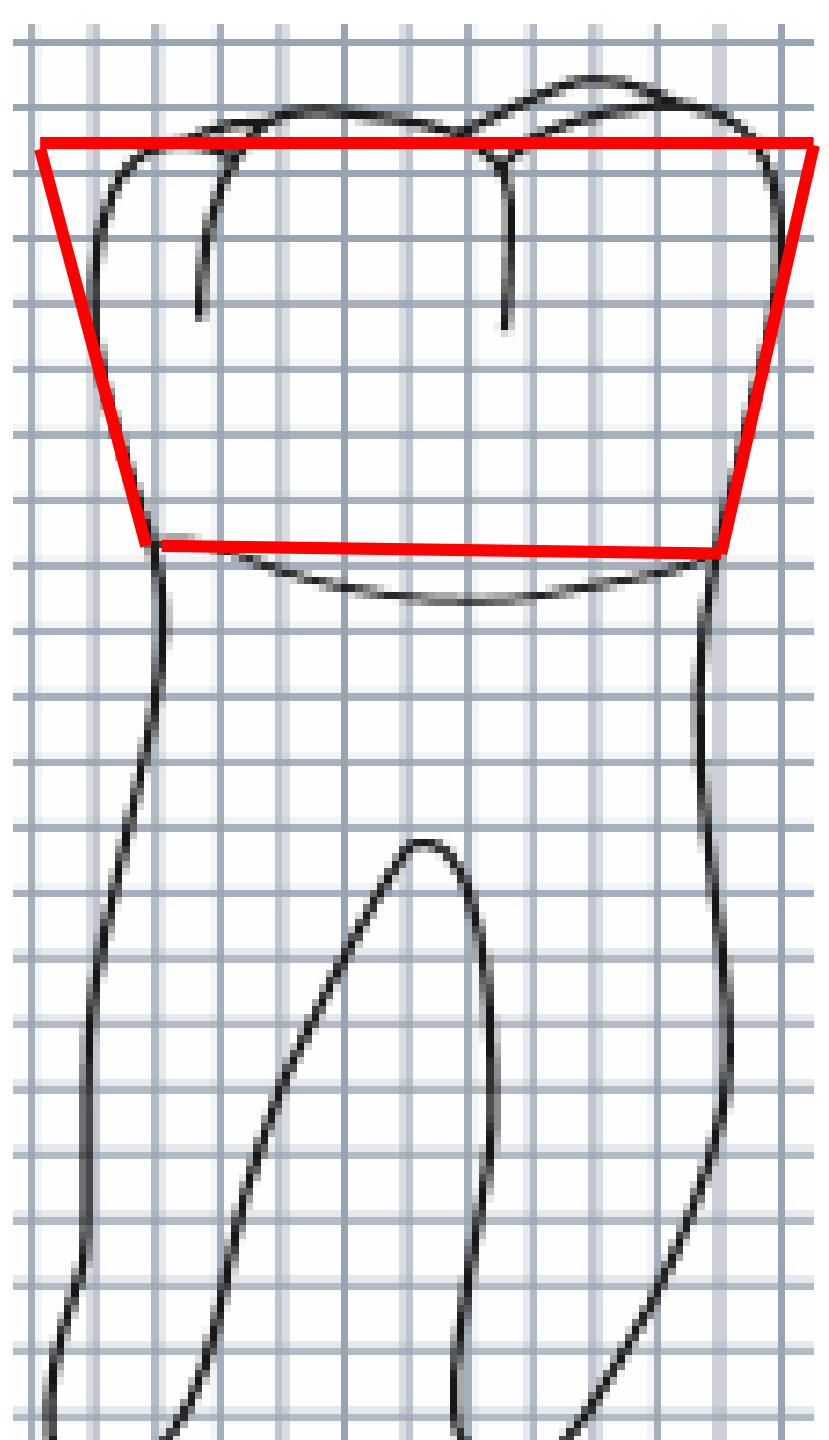
# mandibular first molar

- ❑ It has five well developed cusps: two buccal, two lingual, and one distal
- ❑ It has two well-developed roots, one mesial and one distal



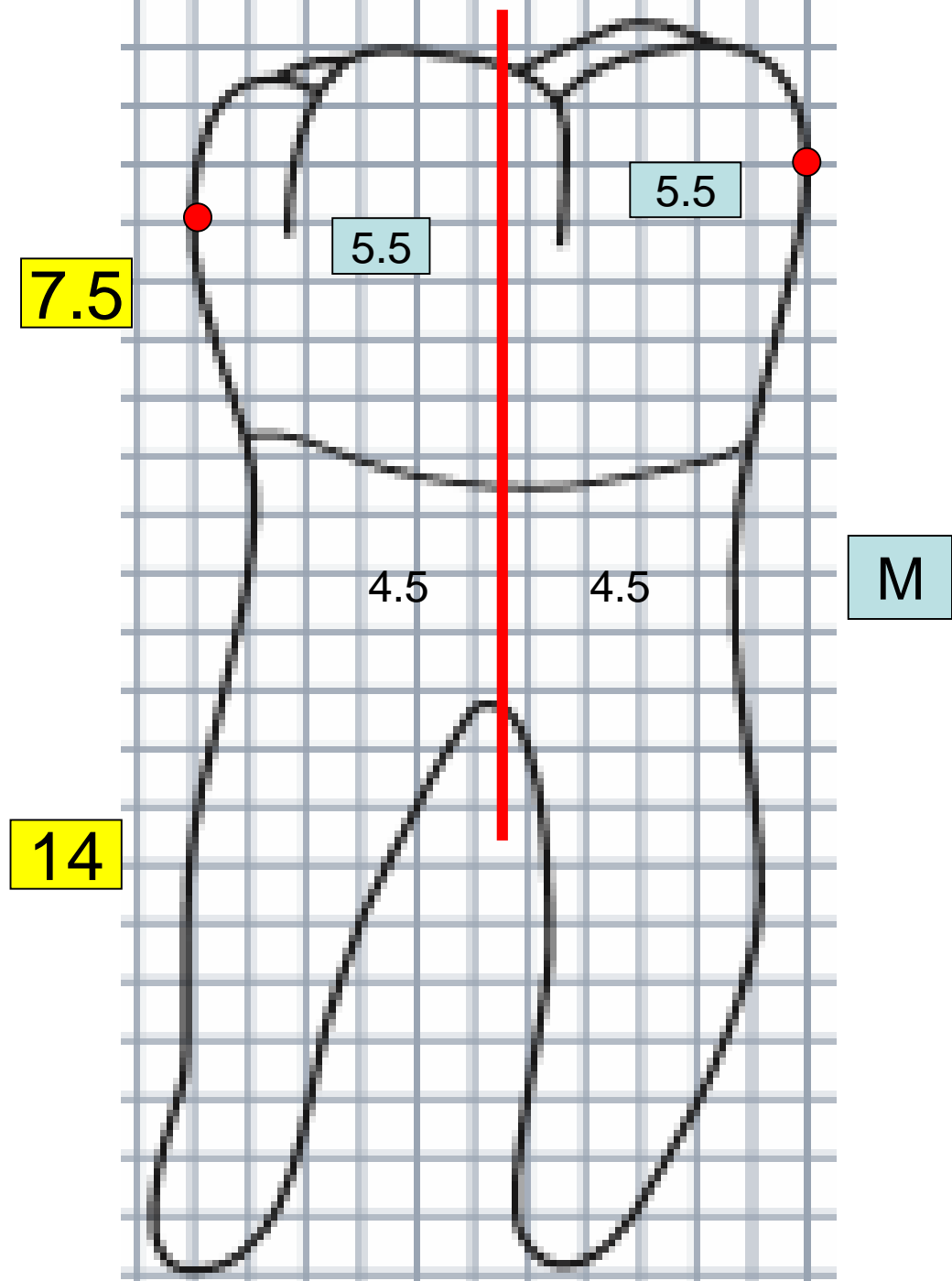
# Buccal Aspect

- the crown is roughly trapezoidal.
- The occlusal side is longer than cervical



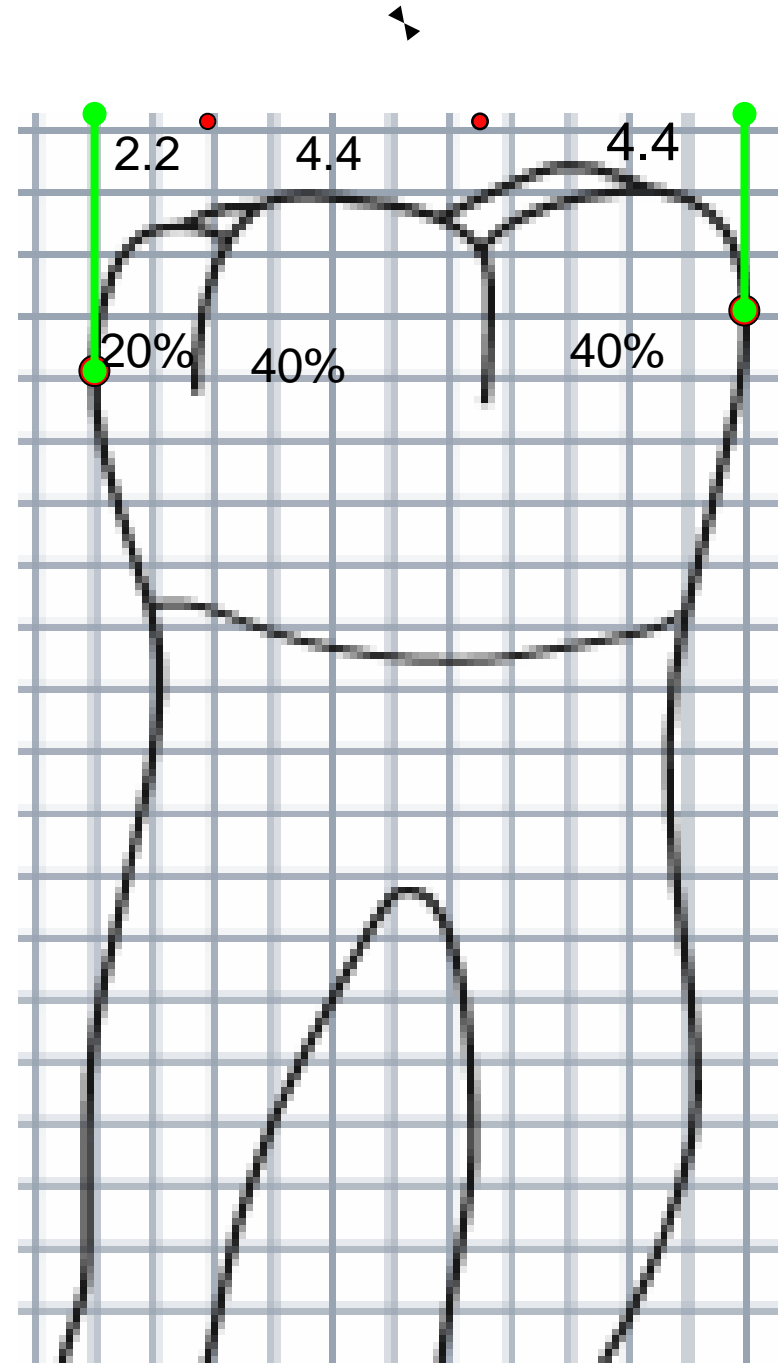
# Buccal aspect

- The cervical line is dipping apically toward the root bifurcation.
- The mesial outline is **straight** from cervix to contact area
- Contact are at the **junction of occlusal and middle** third of the crown
- The distal outline is similar to mesial
- Contact area **lower** than mesial

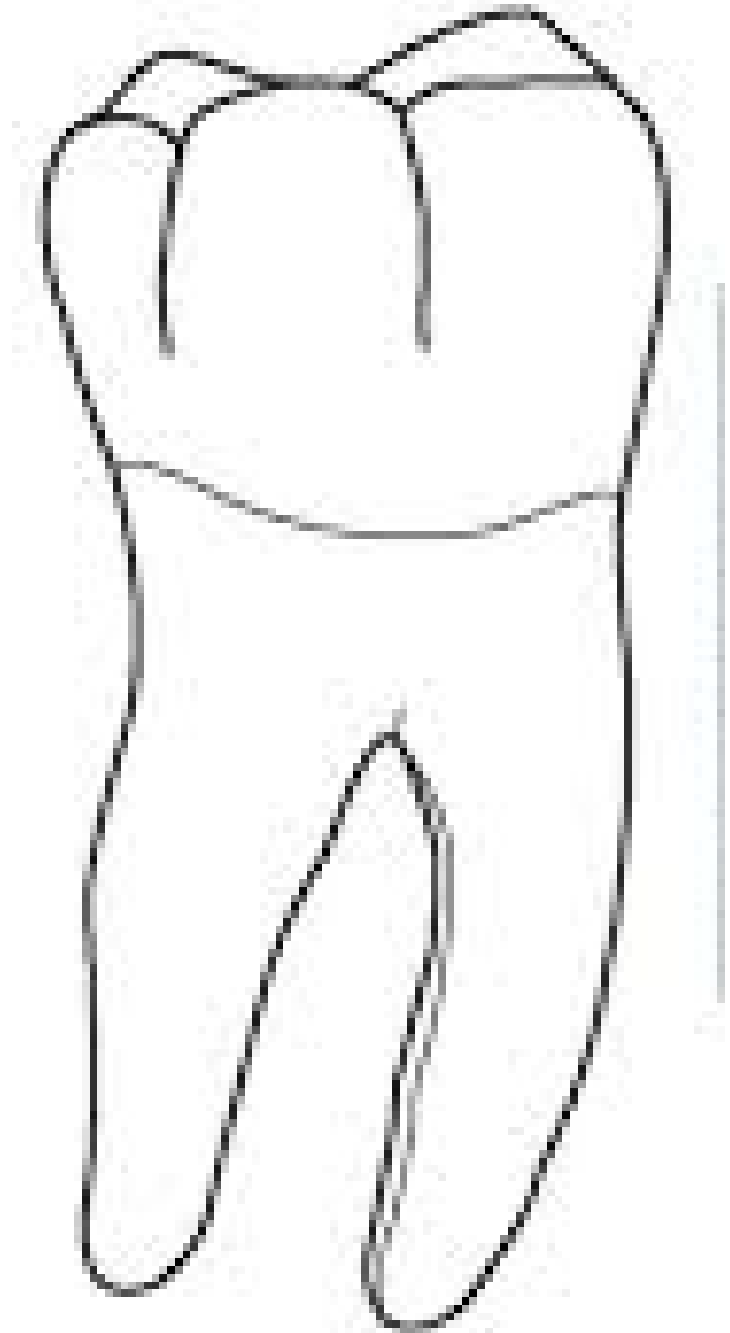


# Buccal aspect

- The two buccal cusps make up about 80% of the buccal surface.
- The distal cusp, is small, making 20%.

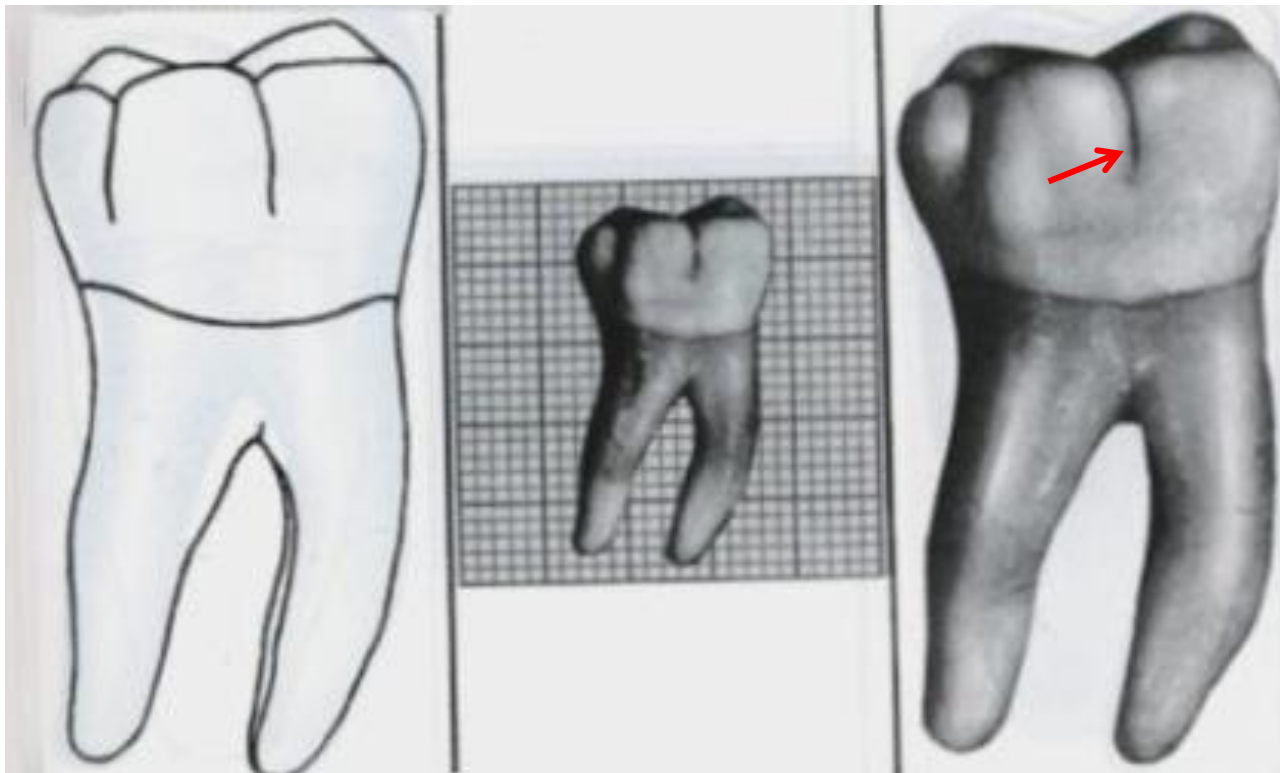


- The lingual cusps may be seen because they are higher than the others
- The mesiobuccal, distobuccal, and distal cusps are relatively flat in comparison with lingual cusp



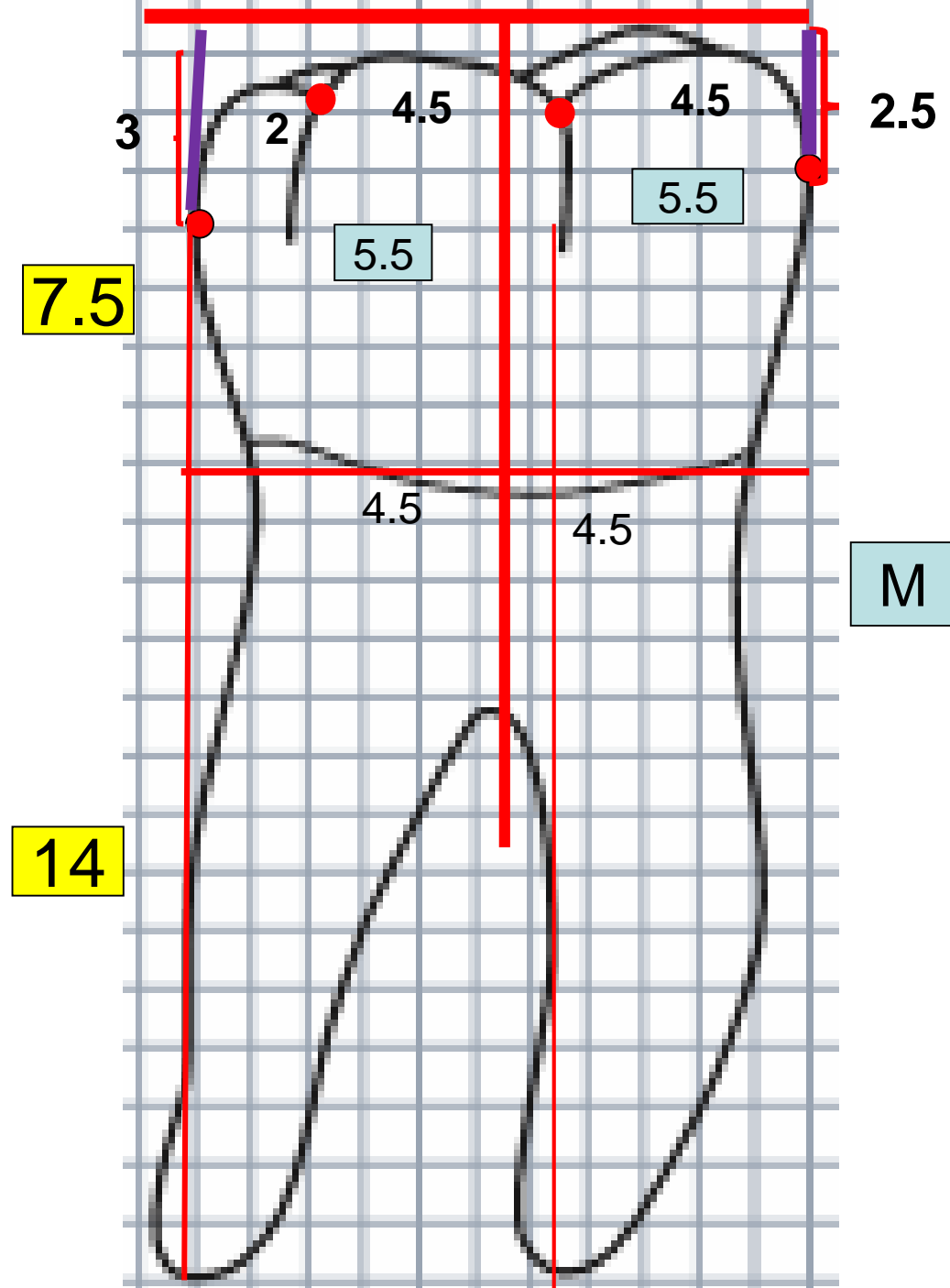
Two developmental grooves appear on the crown portion.

- the mesiobuccal developmental groove.( **shorter** than the distobuccal)
- the distobuccal developmental groove. starts at a point four fifth the distance from mesial to distal outline, & has its terminus near the distobuccal line angle at the cervical third



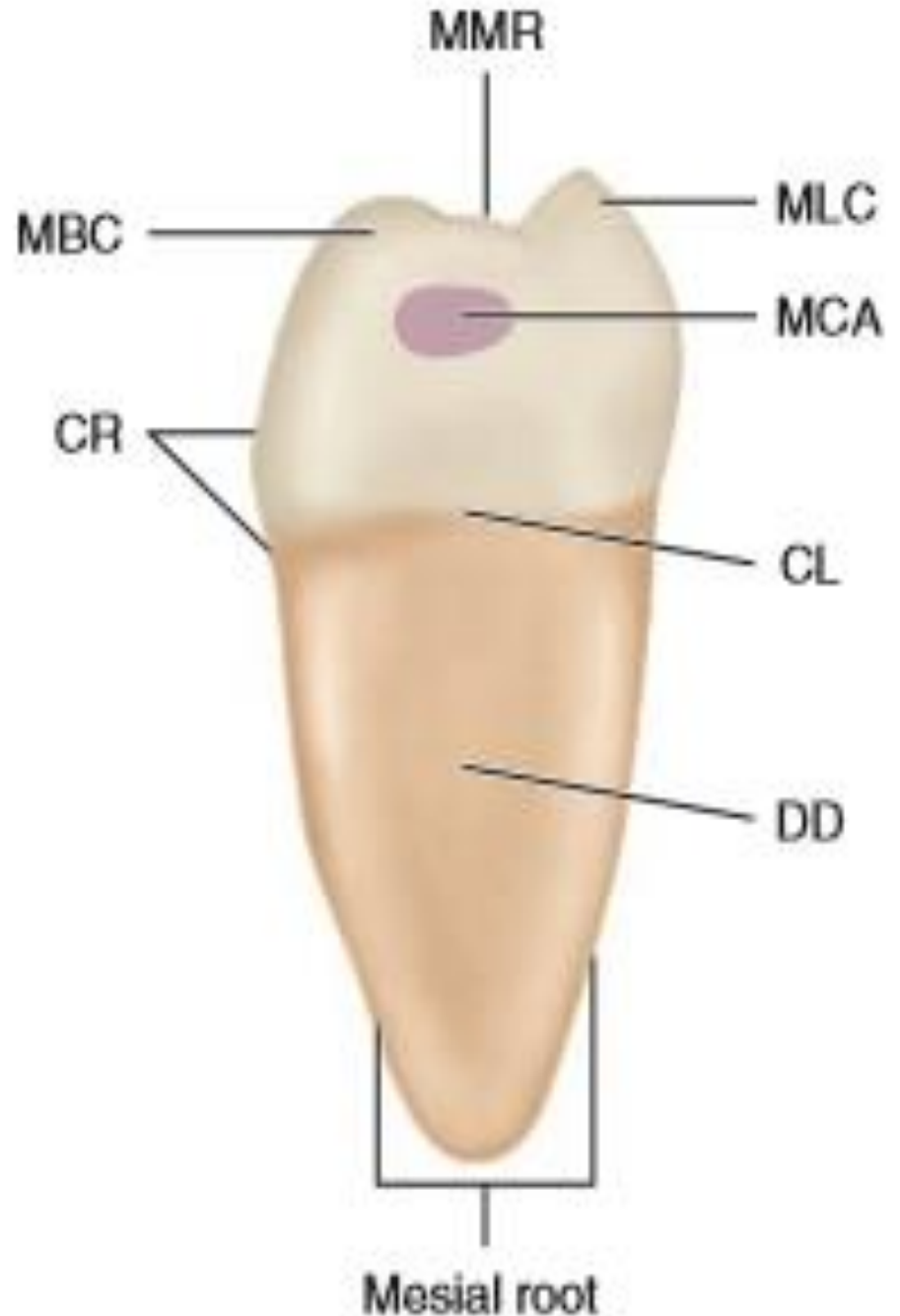
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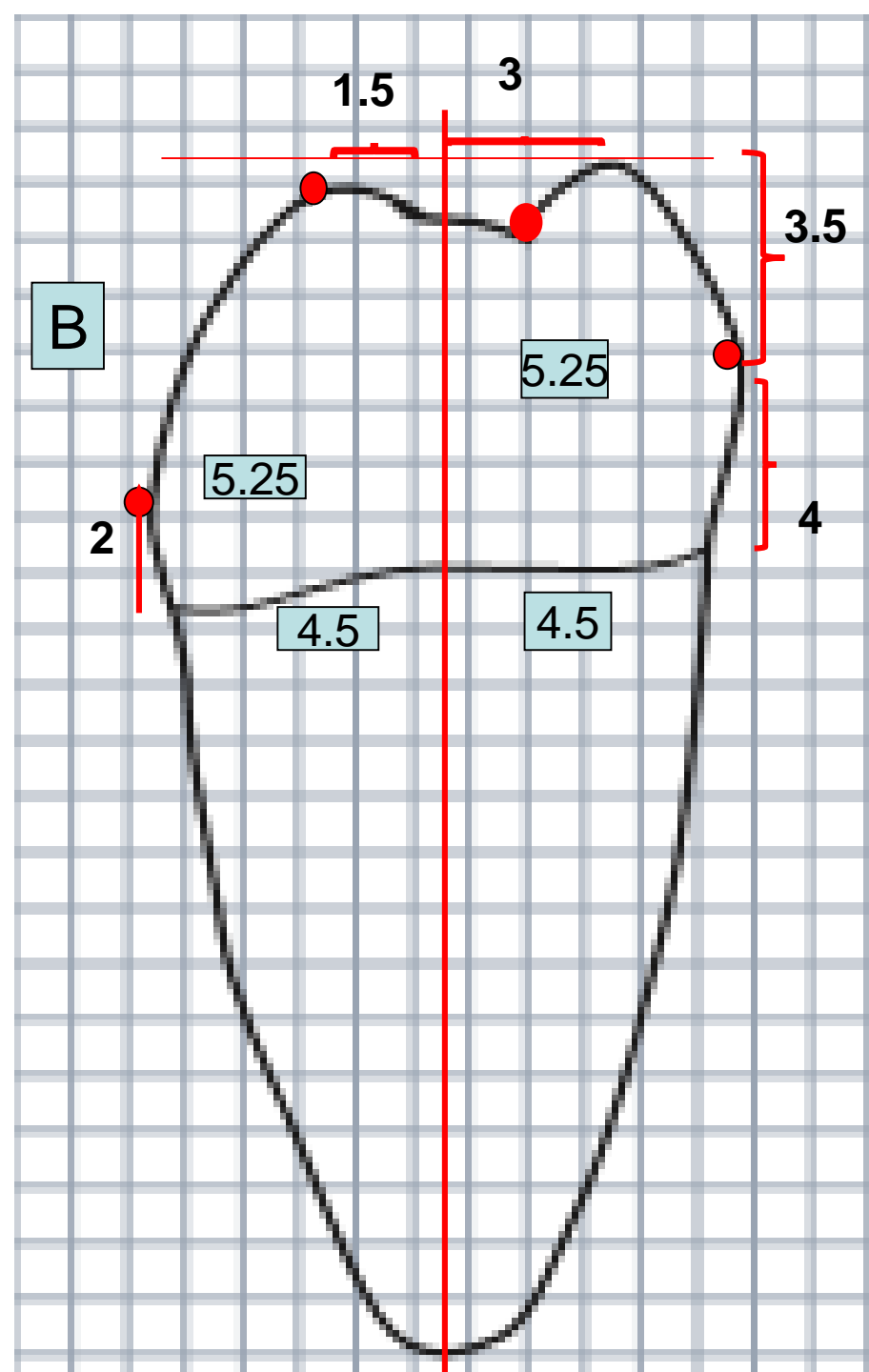
# Mesial aspect

- ❑ two cusps:
  - the mesiobuccal
  - mesiolingual cusps
- ❑ The buccal cusp is flat & the lingual cusp is sharp, with greater cusp height
- ❑ one root the mesial root



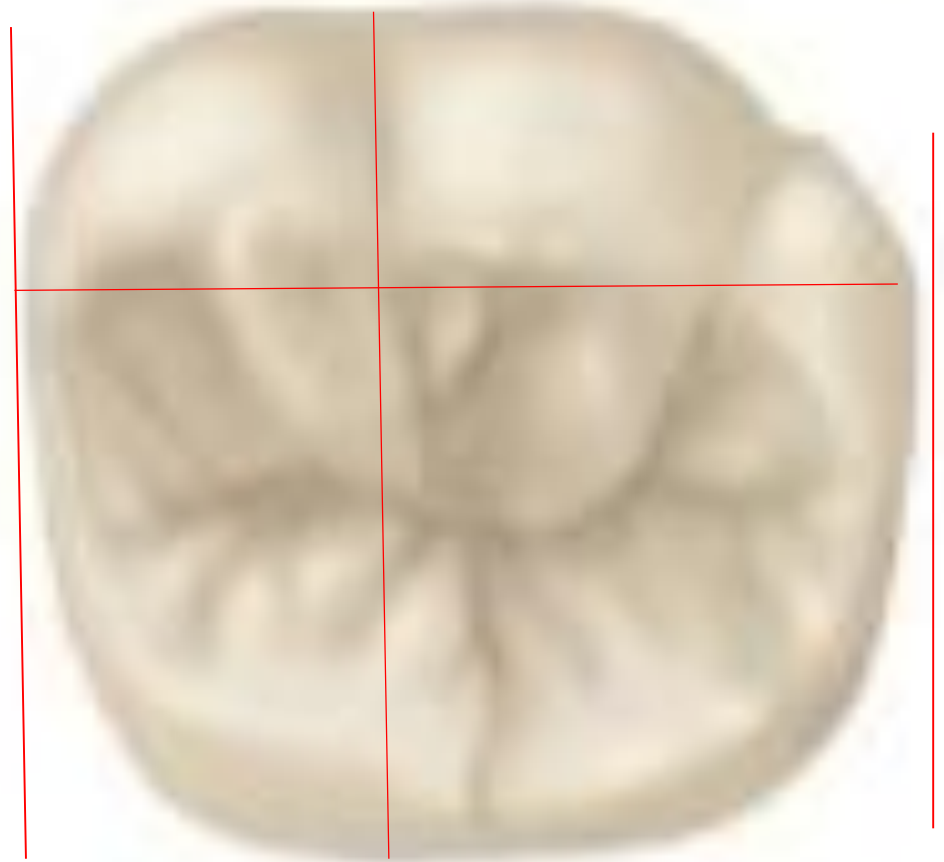
# Mesial aspect

- the cervical line is **irregular, 1 mm higher lingually** than buccally
- The buccal outline is **convex above** the cervical line
- the crest of curvature is at the **junction of the cervical and middle third**
- Above the cervical ridge the outline become **straighter or flat** to the buccal cusp
- The lingual outline start as **straight** line from the cervical line & joining the lingual curvature
- The crest is located at the **center of the middle third**
- The mesial marginal ridge is placed **1mm** below the level of the cusp tip



# Occlusal Aspect

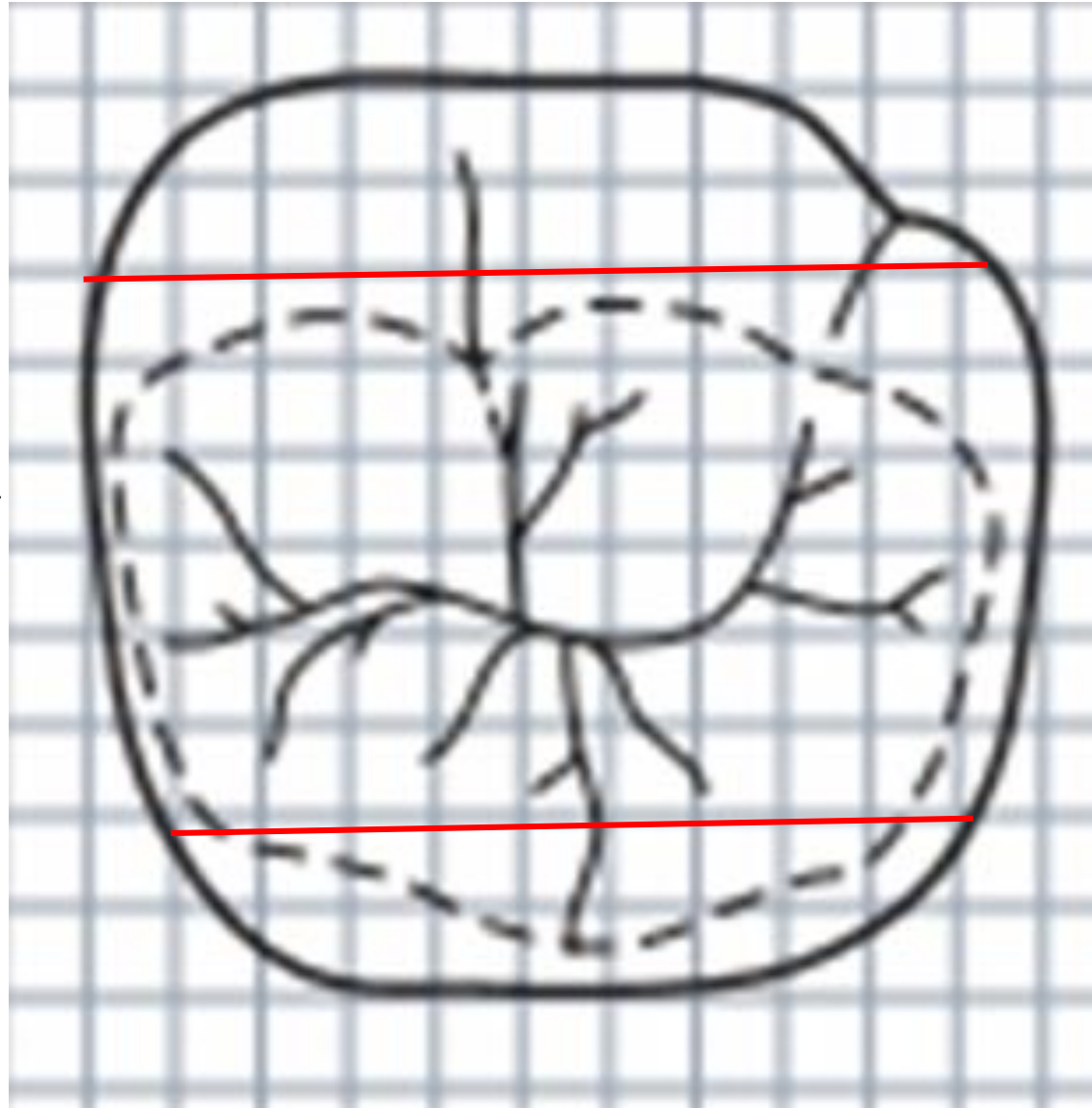
- ❑ the crown is rectangular
- ❑ The crown measurement is 1 mm or more greater mesiodistally than buccolingually.
- ❑ The buccolingual measurement is greater on the mesial than on the distal side



Occlusal

# Occlusal Aspect

- ❑ The crown tapers lingually
- ❑ The mesiodistal measurement of the crown buccally is greater than lingually
- ❑ great part of the buccal surface may be seen, whereas only a small portion of the lingual surface may be seen



# Occlusal surface

□ The 5 cusps appear:

- the mesiobuccal cusp is the largest,

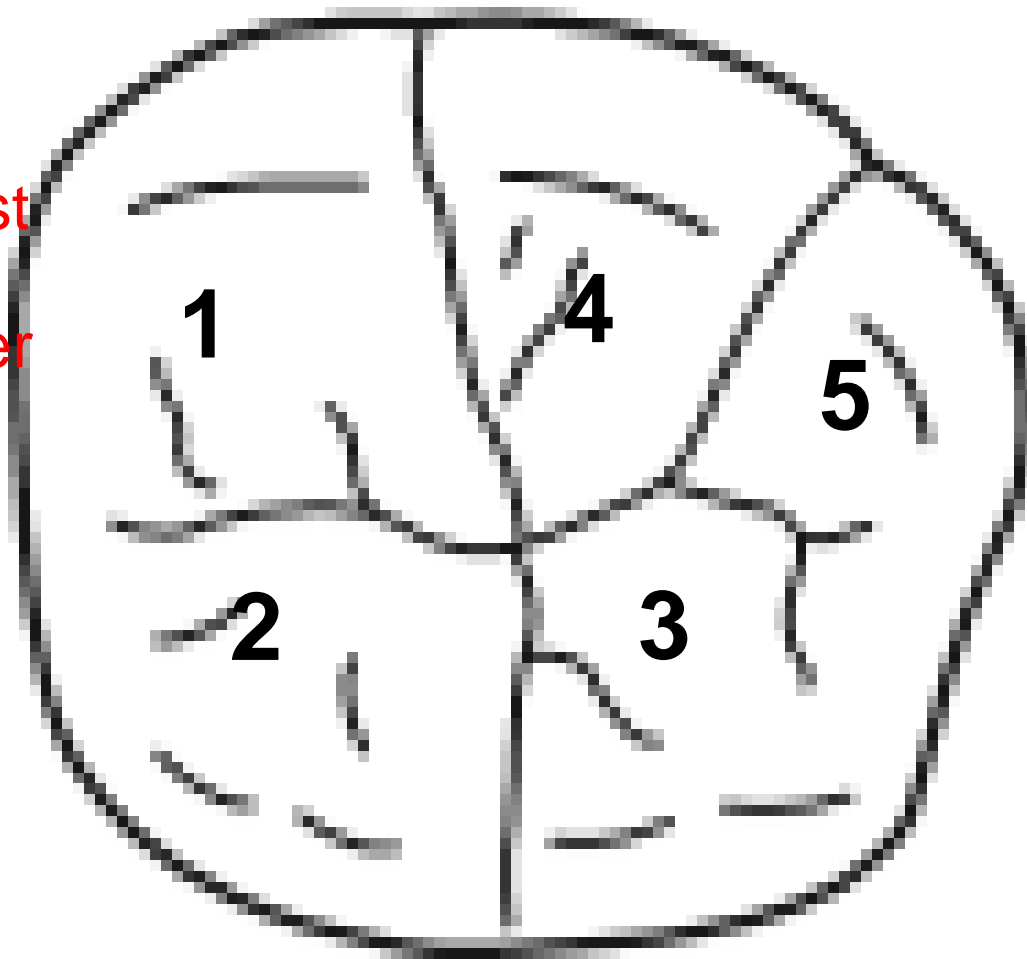
- the mesiolingual

- the distolingual

} are almost equal to each other in size

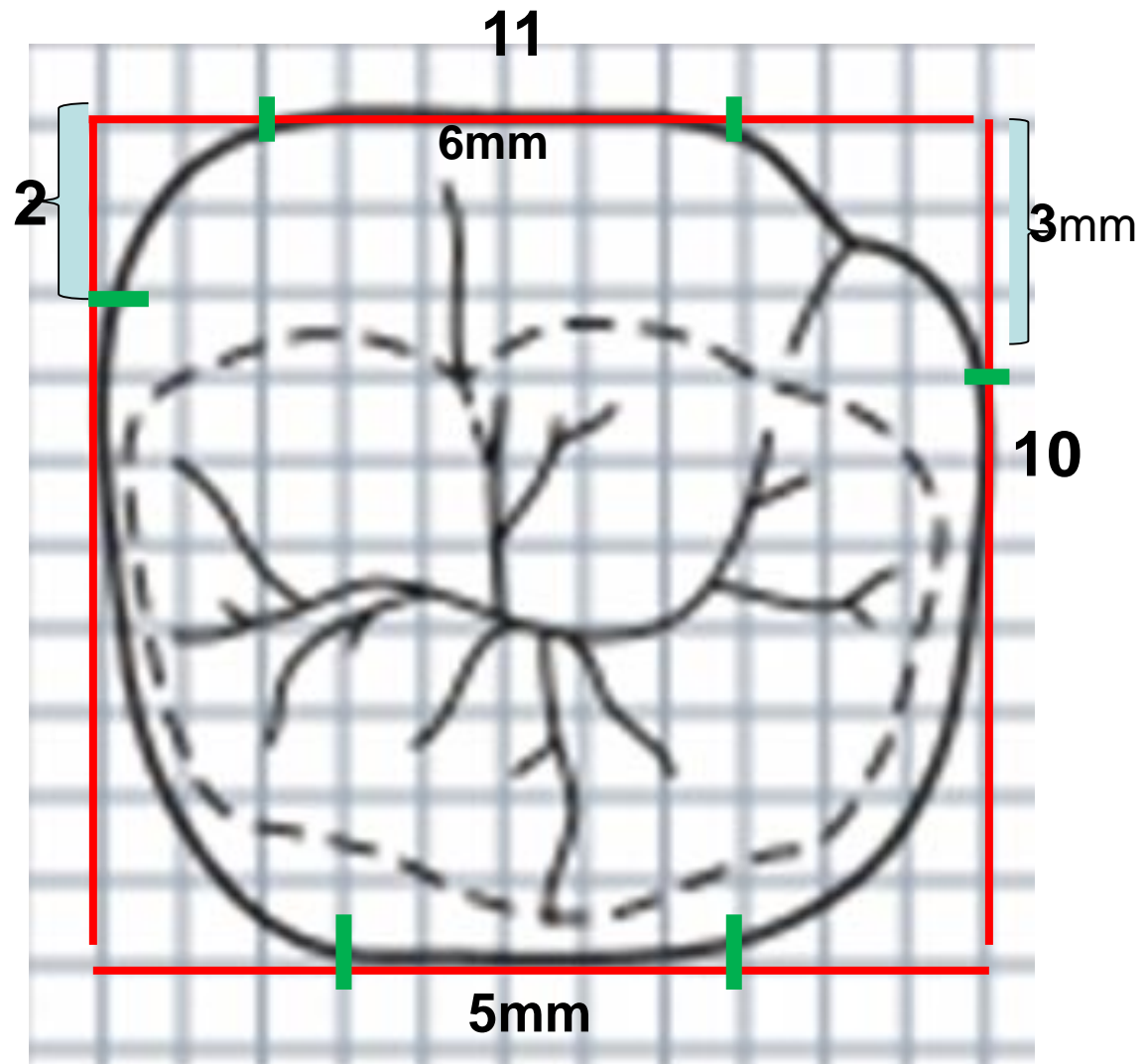
- the distobuccal

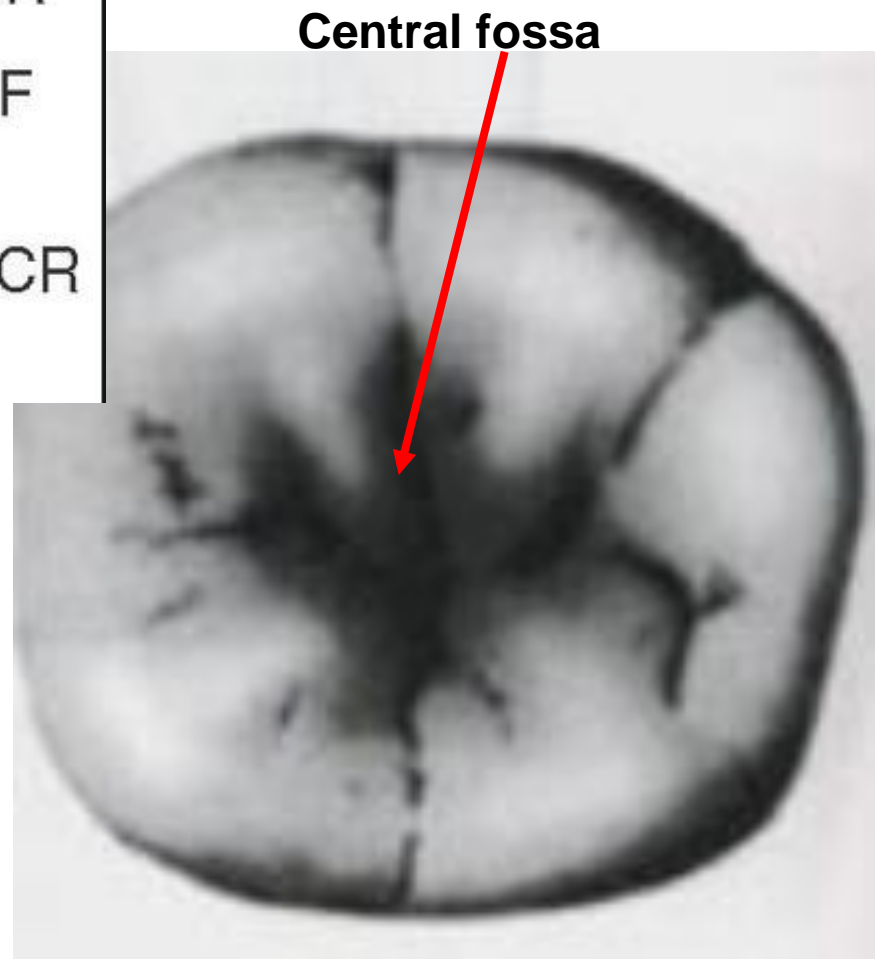
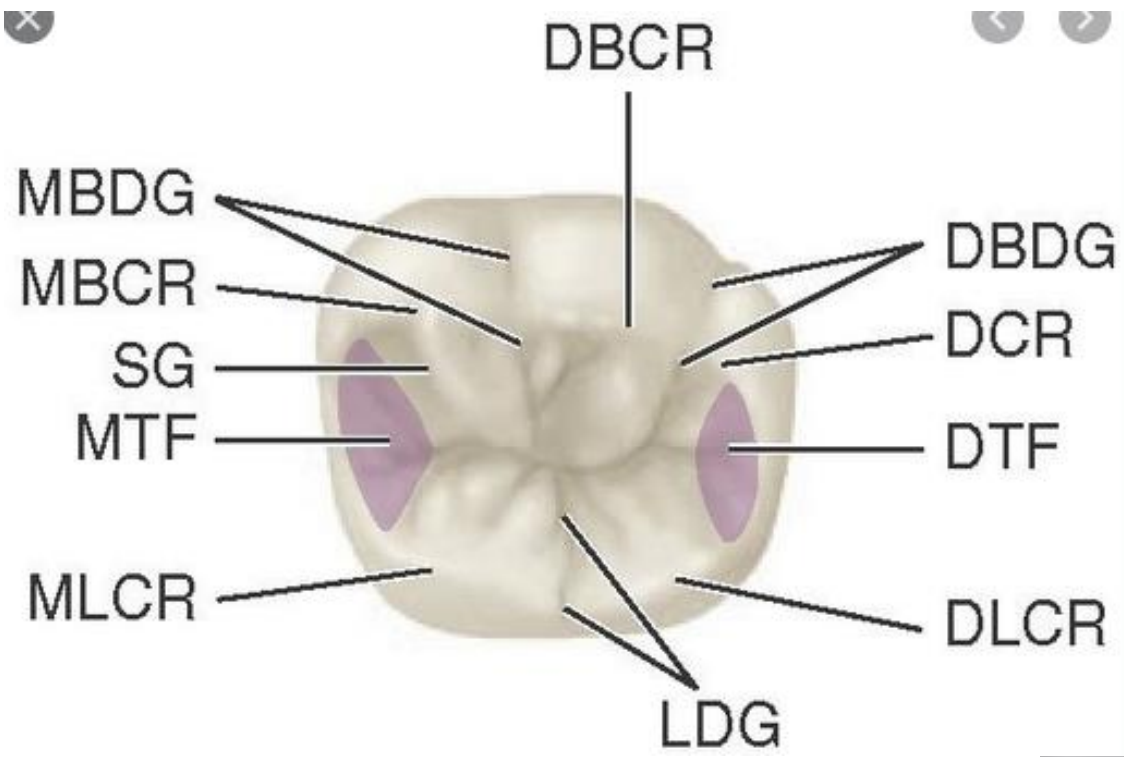
- the distal cusp, which is the smallest of all

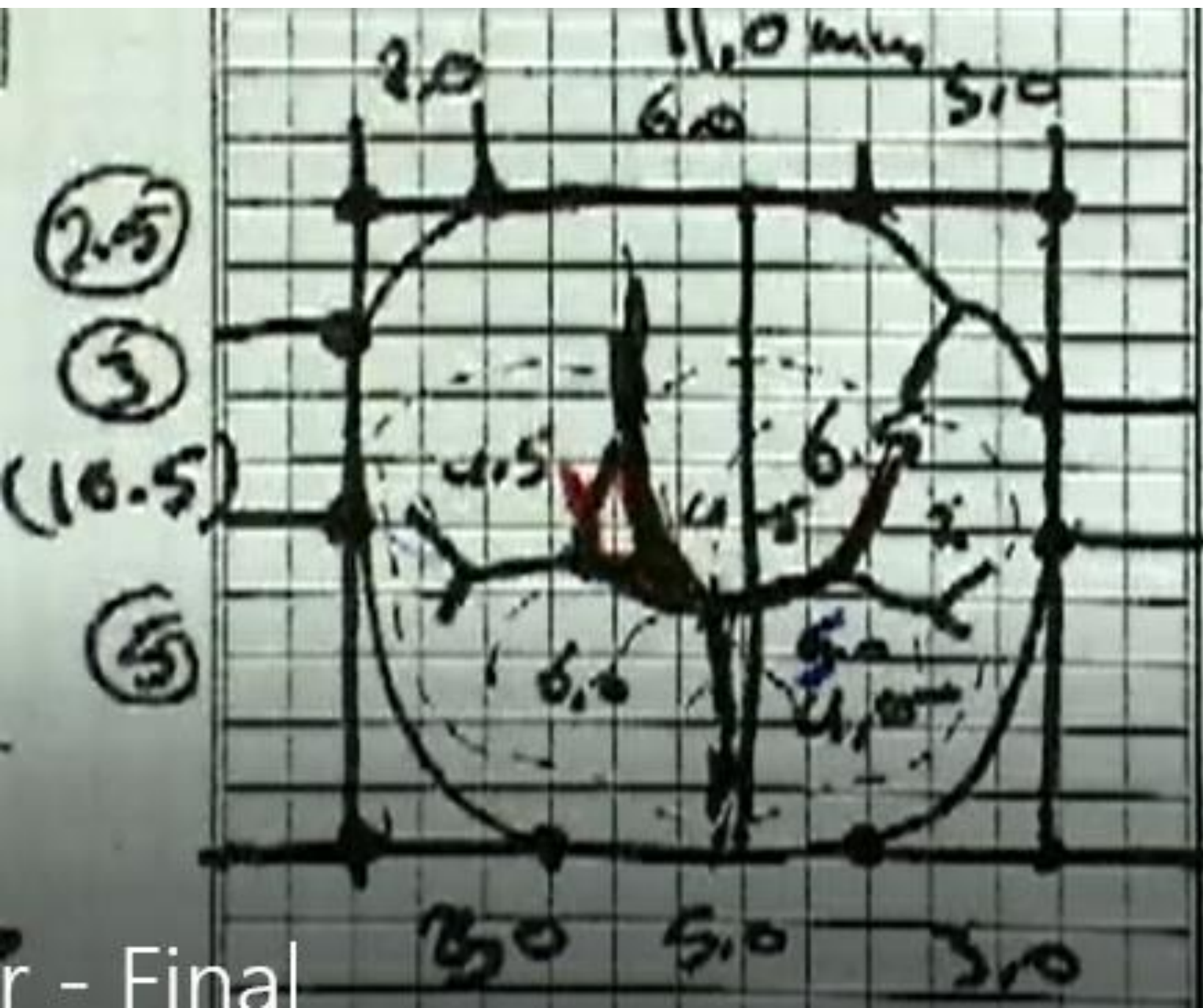


# Occlusal aspect

- The distal contact area located on the distal cusp
- The crown tapers lingually from the contact areas







3.5  
2.0  
5.0

r - Final