

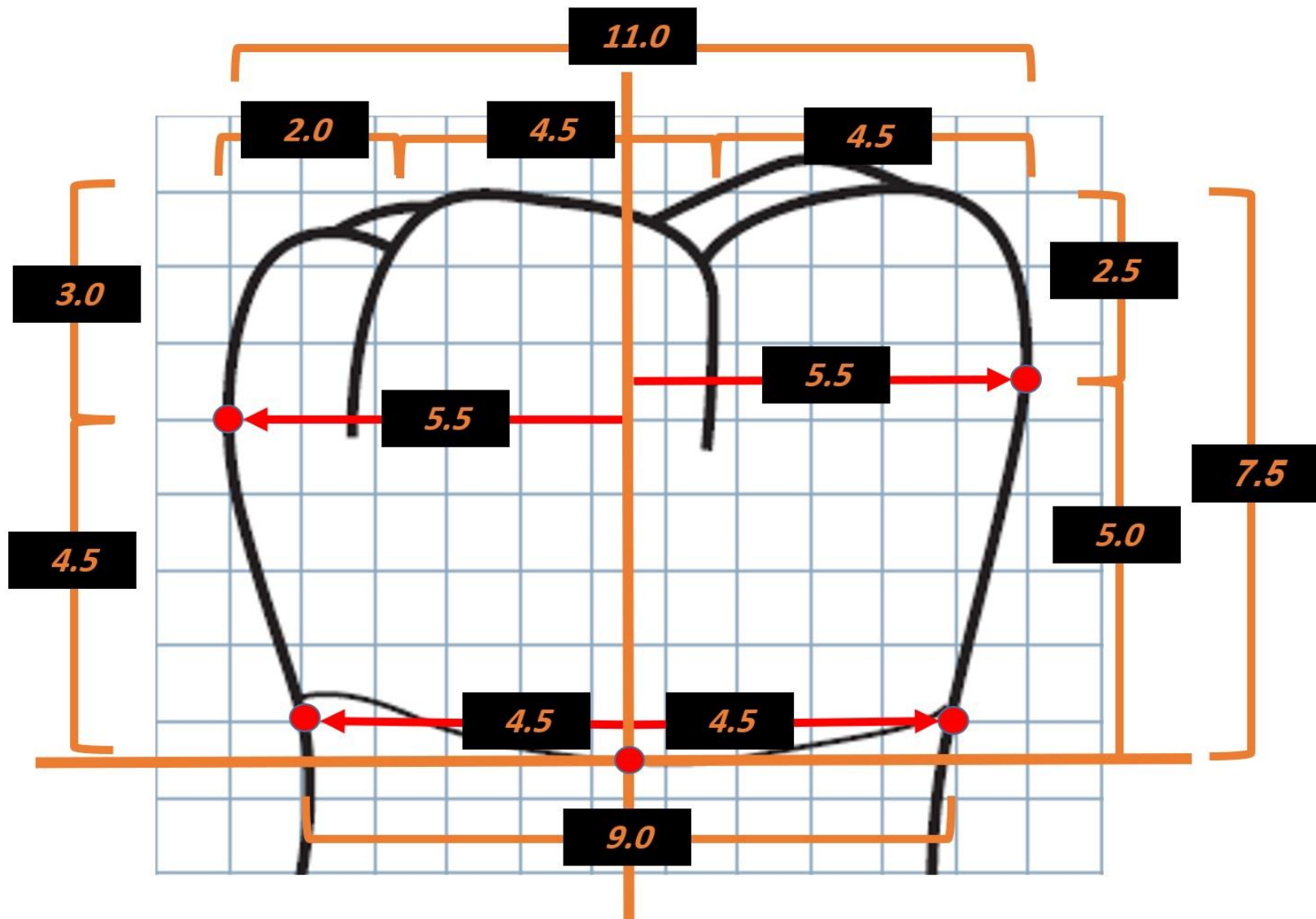
# Mandibular Right First Molar

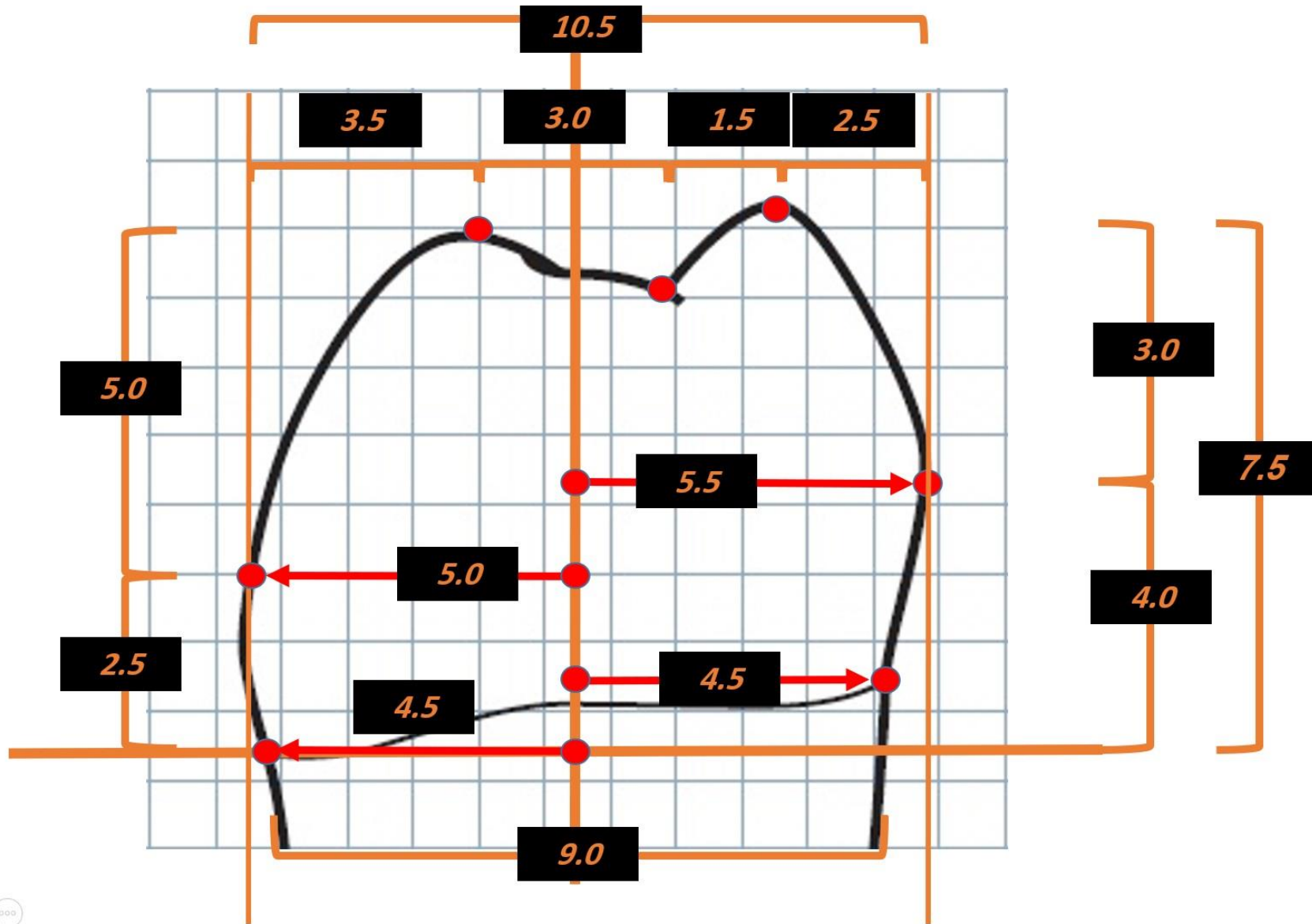
By:

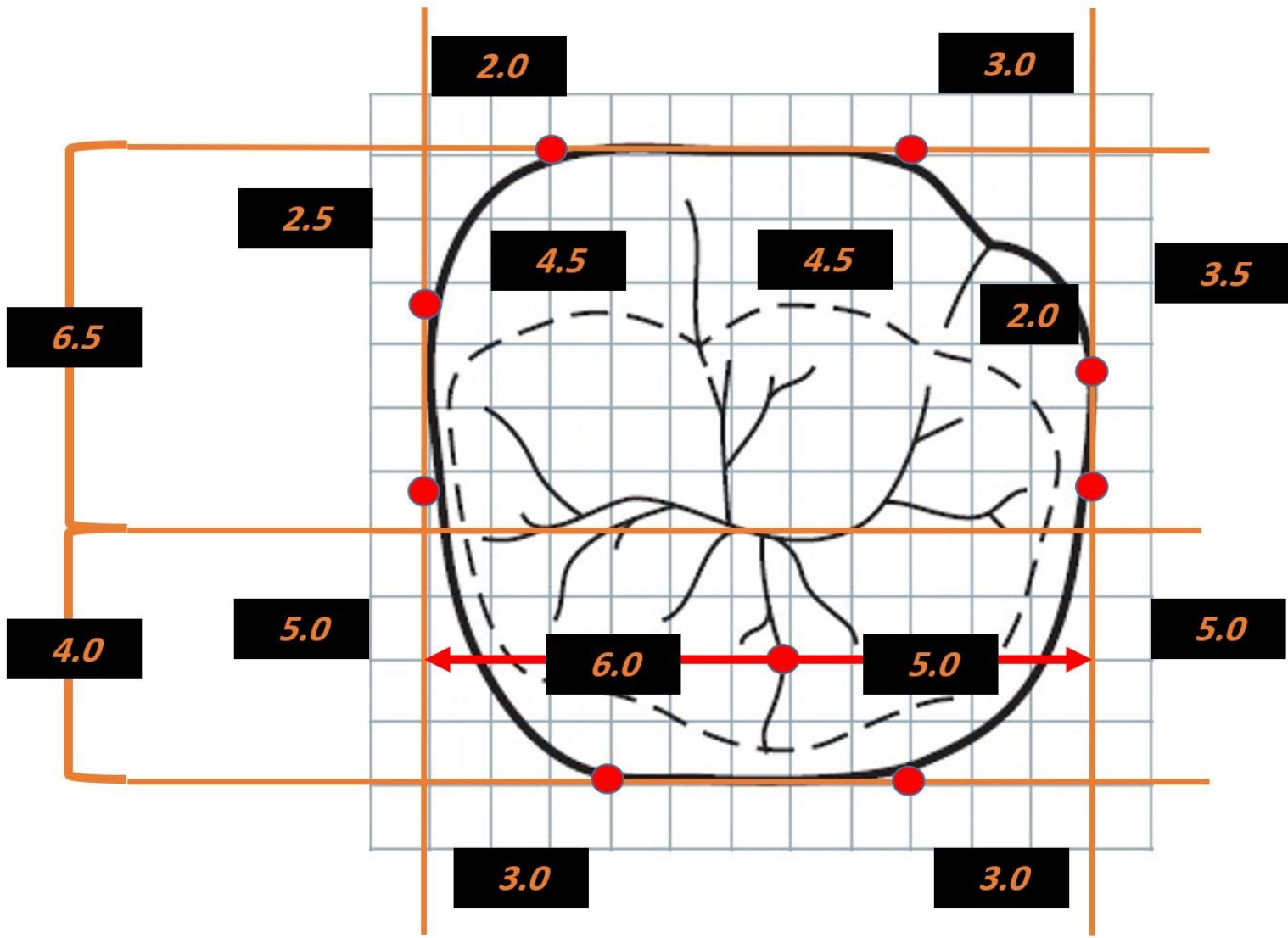
Dr. Mohanad Azzawi

<https://youtu.be/A3CQ4P86kfQ>









# MANDIBULAR FIRST MOLAR

Dr. Alaa Safaa Aldeen

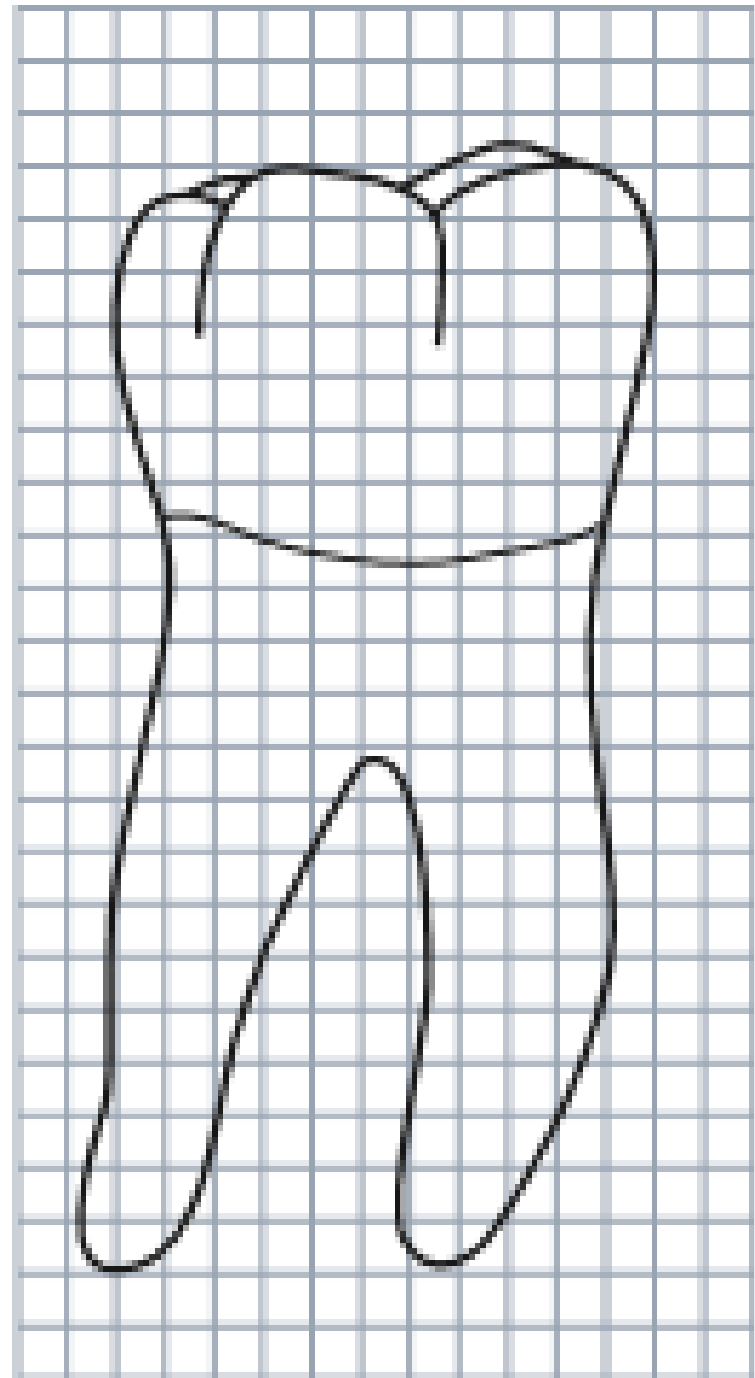
# Mandibular first molar

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



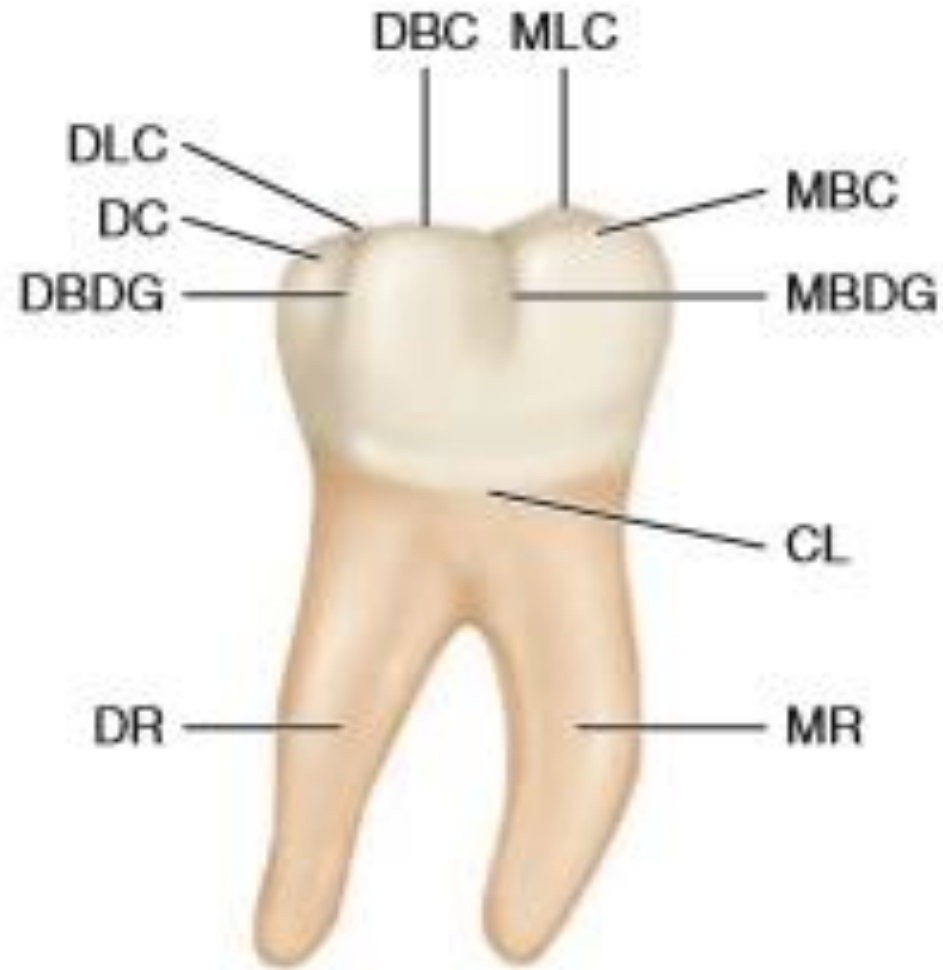
# Buccal Aspect

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



# 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





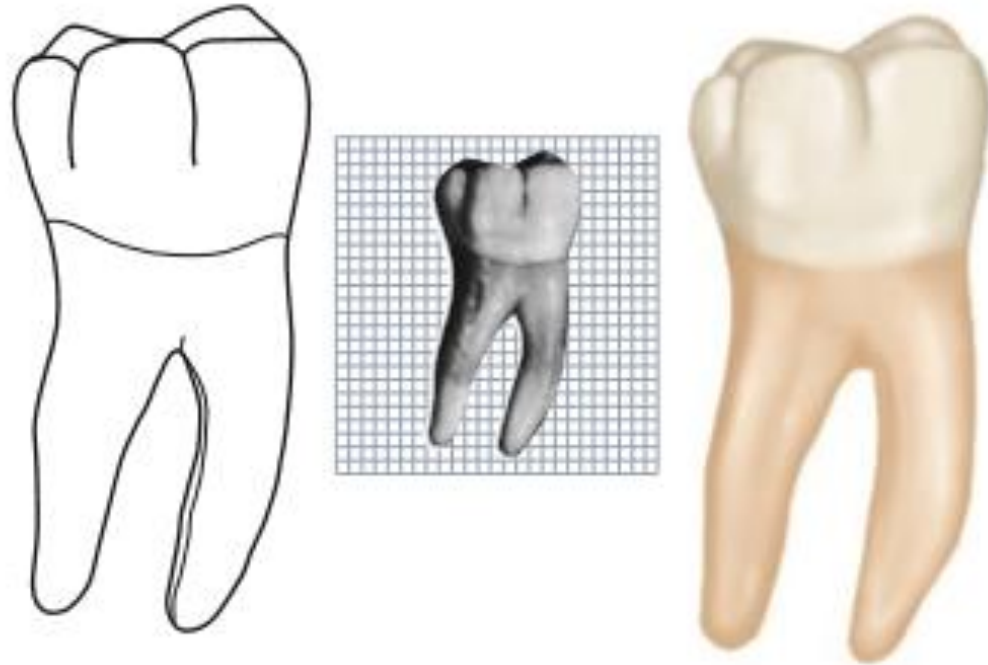
# Buccal Aspect

- Two developmental grooves appear on the crown portion. The **mesiobuccal** and the **distobuccal** developmental groove
- Mesial developmental groove is shorter than distal
- The **cervical line** is **regular, dipping apically** toward the root bifurcation.



# Buccal Aspect

- The 2 buccal cusps, distal cusp and tips of its lingual cusps can be seen
- The outline of all cusps are convex
- The mesiobuccal, distobuccal, and distal cusps are relatively flat in comparison with lingual cusp



# Buccal Aspect

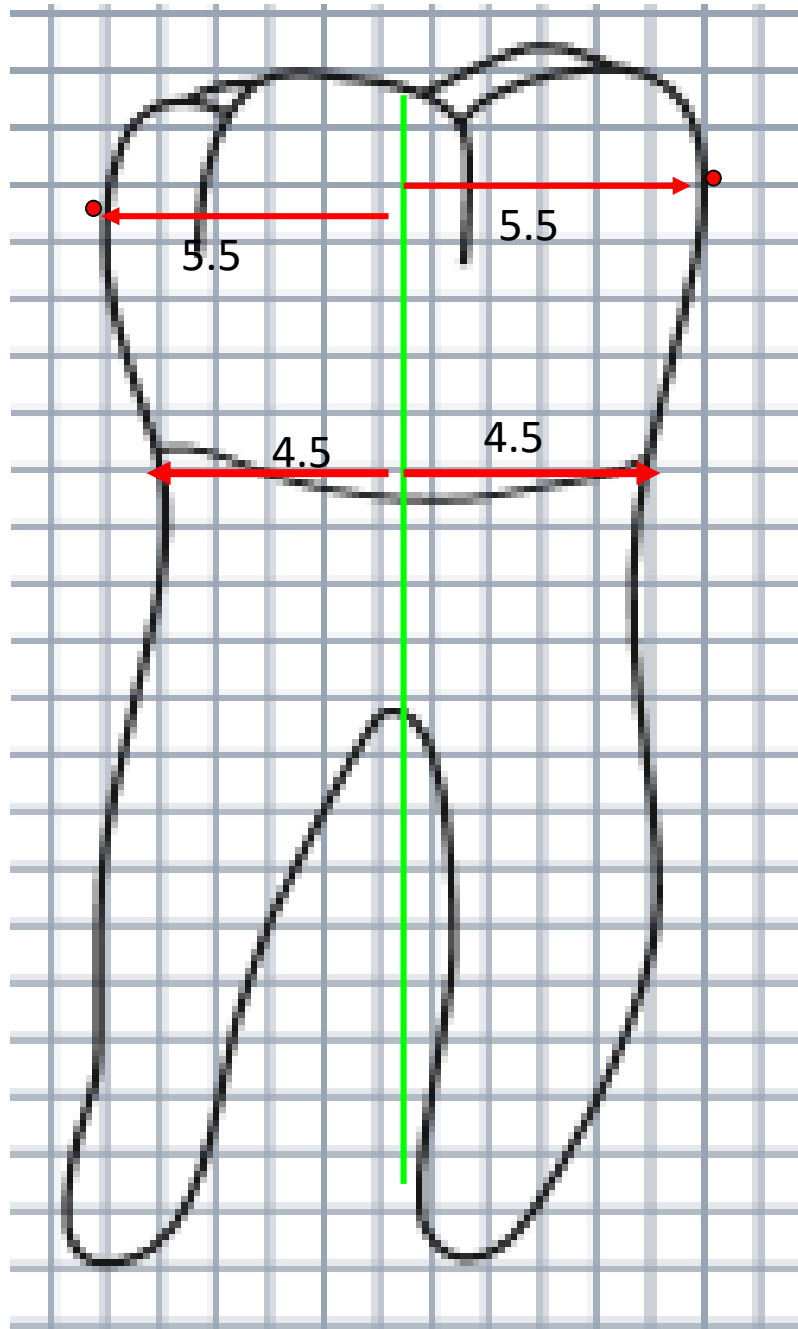
- The **two buccal cusps** make up **80%** of the buccal surface of the crown
- The **distal cusp**, is small, and more rounded (pointed) making **20%**.
- The mesiobuccal cusp is usually the widest mesiodistally of the three cusps.



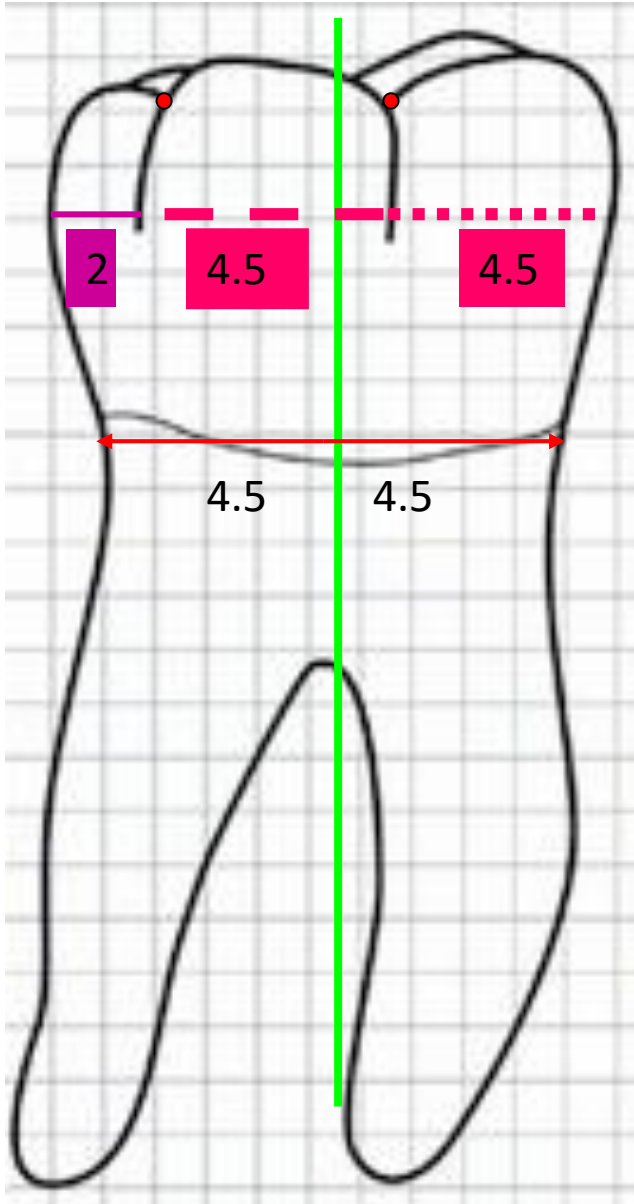
# Buccal aspect

- mesial outline is concave (nearly straight)
- Mesial contact are at the junction of occlusal and middle third
- distal outline is nearly straight
- Distal contact area is little cervical than mesial because of distal cusp shorter than mesiobuccal cusp





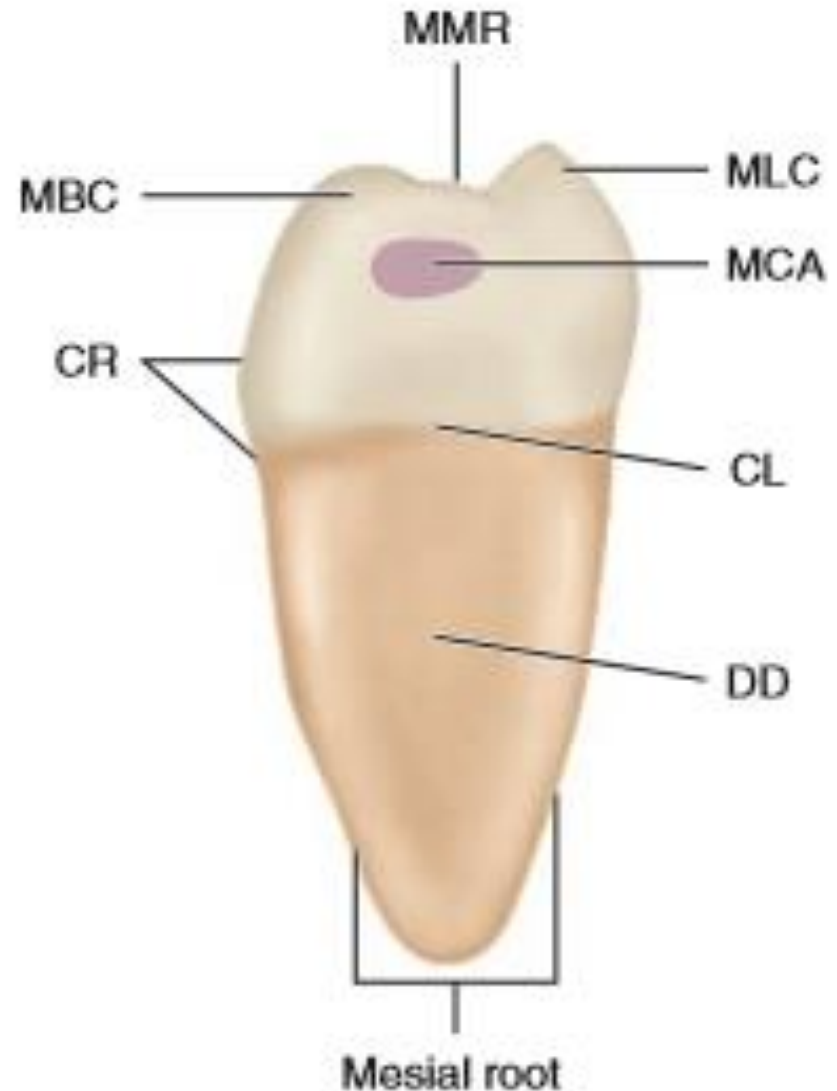
Mesiodistal=11mm  
Mesiodistal at  
cervix=9mm



M

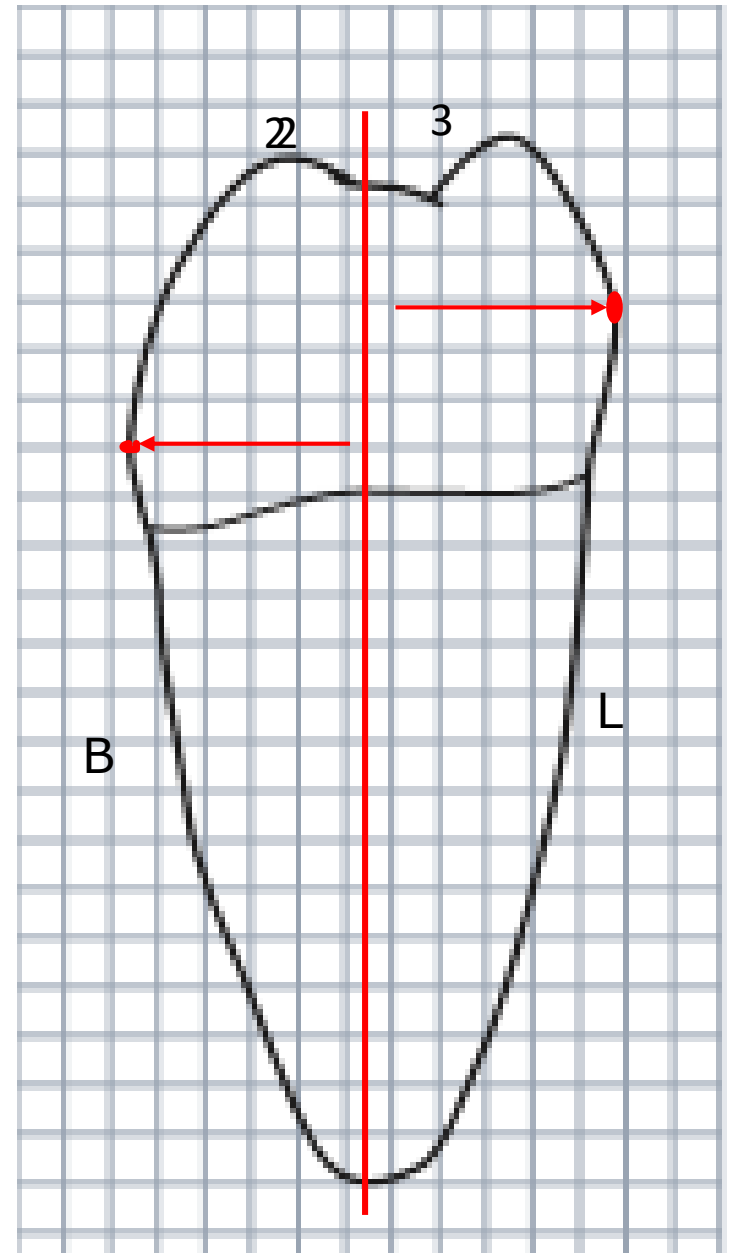
# Mesial Aspect

- ❑ two cusps and one root only are to be seen: the mesiobuccal and mesiolingual cusps and the mesial root
- ❑ The buccal cusp is flat, sharpness of the mesiolingual cusp can be noted
- ❑ the cervical line is irregular and higher lingually than buccally about 1 mm higher.



# Mesial Aspect

- The buccal outline is convex above the cervical line.
- on the buccal side 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 of the crown is straight
- The crest of the lingual contour is located at the center of the middle third of the crown





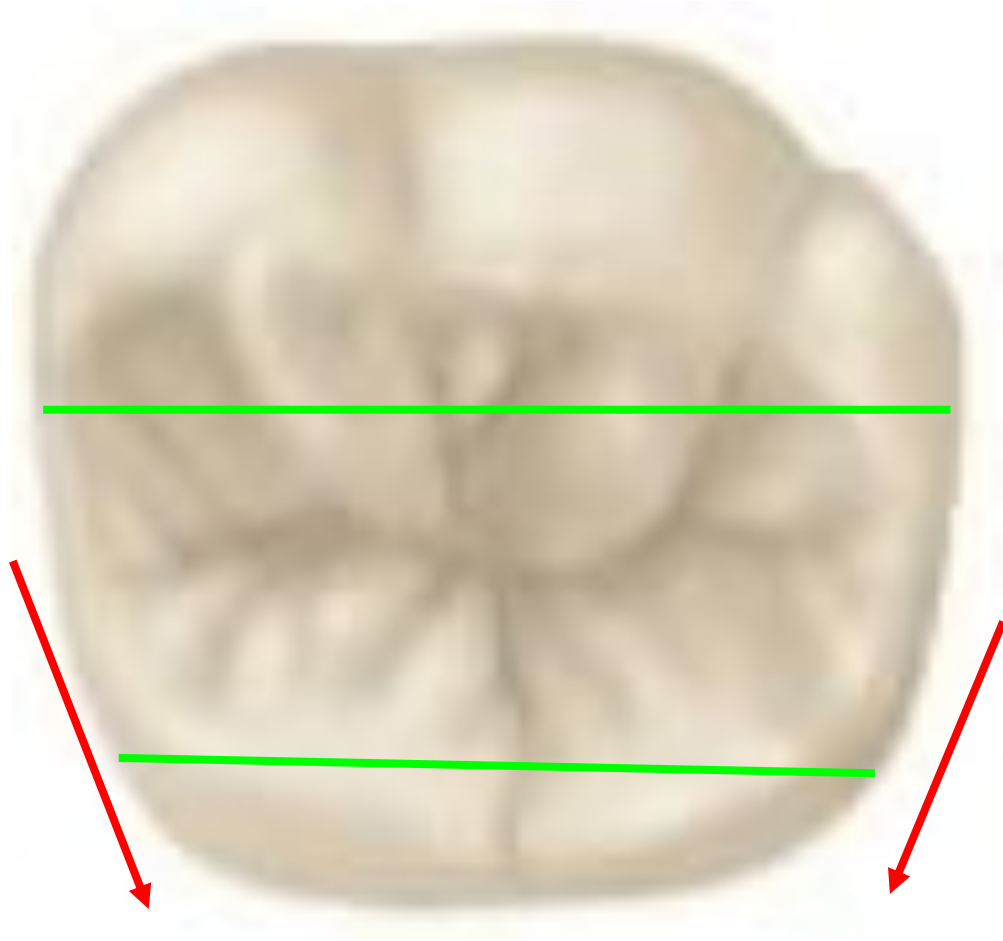
# Occlusal Aspect

- ❑ hexagonal from the occlusal aspect
- ❑ The crown measurement is about 1 mm greater mesiodistally than buccolingually.
- ❑ The buccolingual measurement of the crown is greater on the mesial than on the distal side



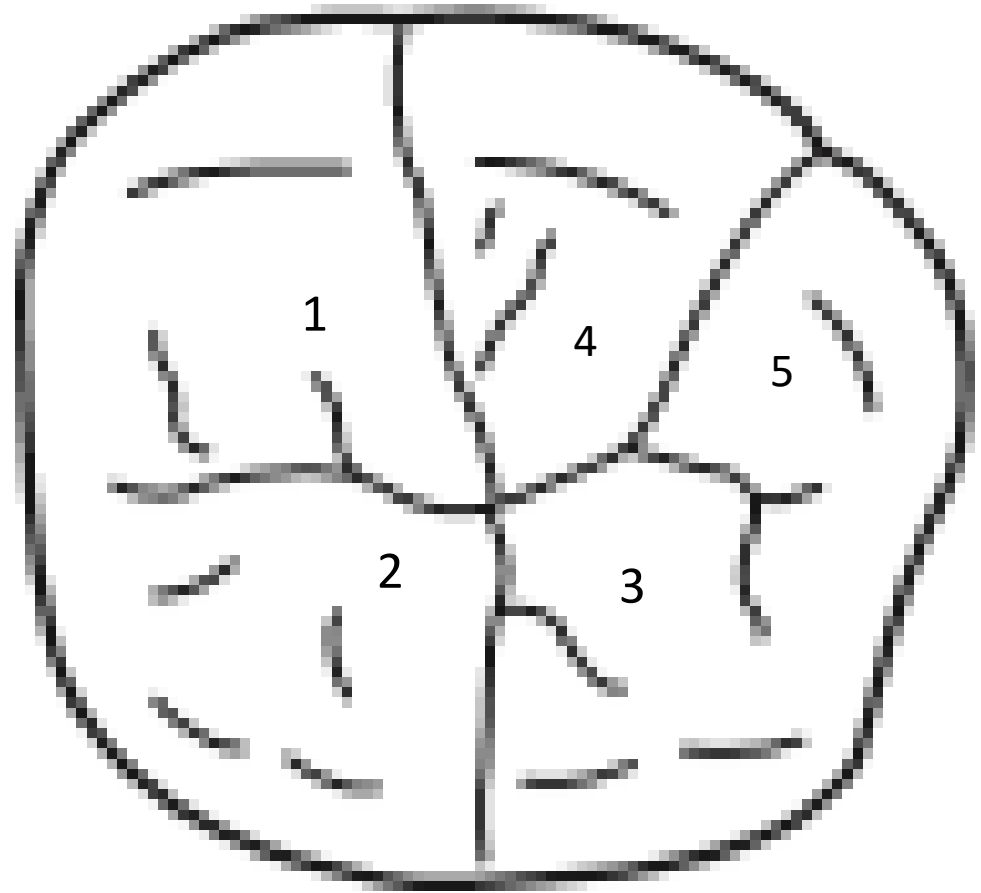
# Occlusal Aspect

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



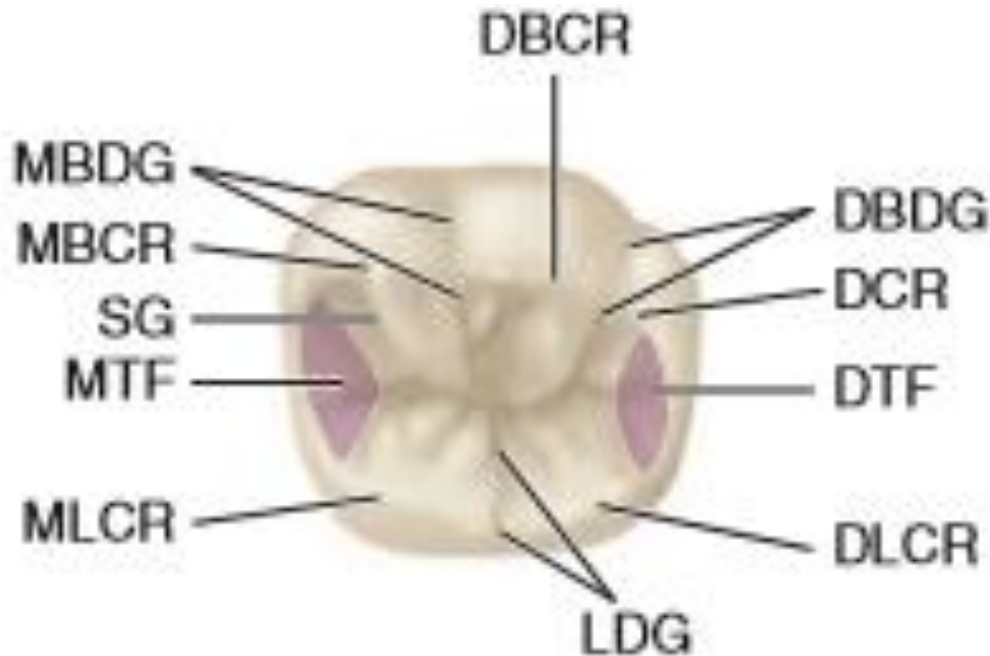
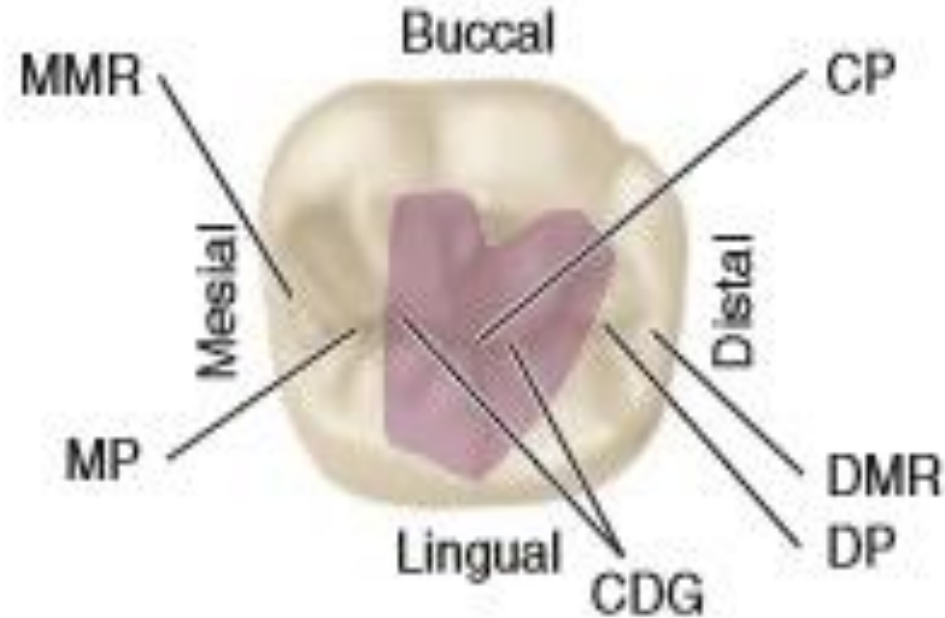
# Occlusal surface

- ❑ The mesiobuccal cusp is slightly larger than either of the two lingual cusps, which are almost equal to each other in size
- ❑ the distobuccal cusp is smaller than any one of the other three mentioned
- ❑ the distal cusp the smallest of all.



# Occlusal surface

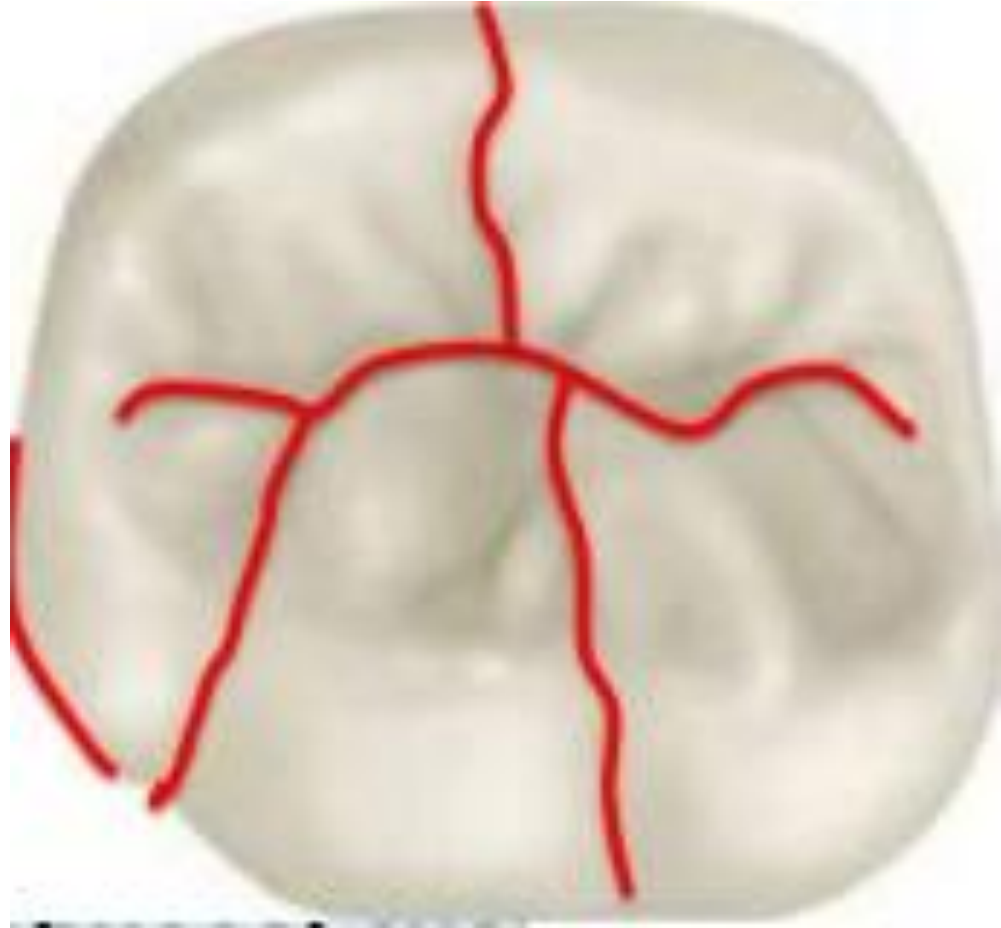
One major fossa: is the central fossa it is centrally placed on the occlusal surface



The two minor fossae:  
the mesial triangular fossa  
the distal triangular fossa

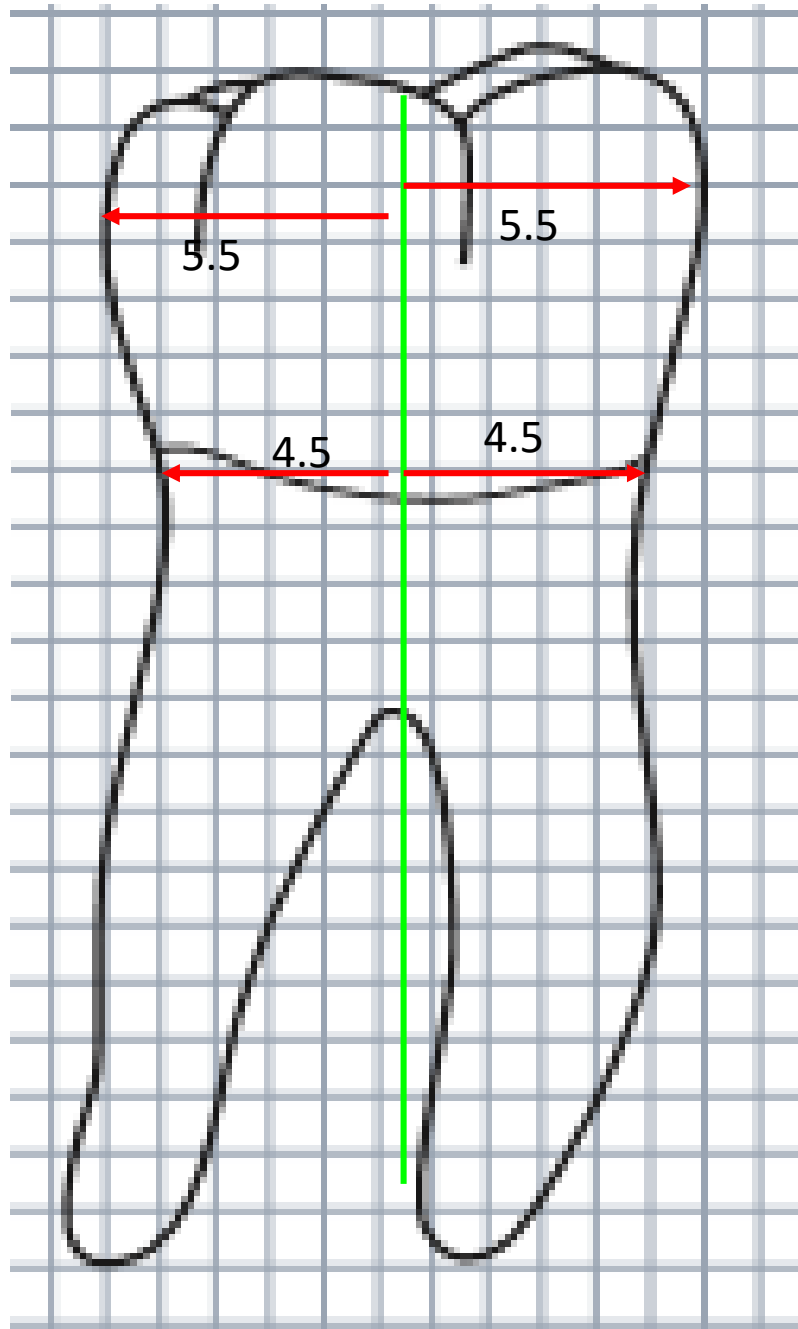
# Occlusal surface

- central developmental groove
- mesiobuccal developmental groove,
- distobuccal developmental groove,
- lingual developmental groove.

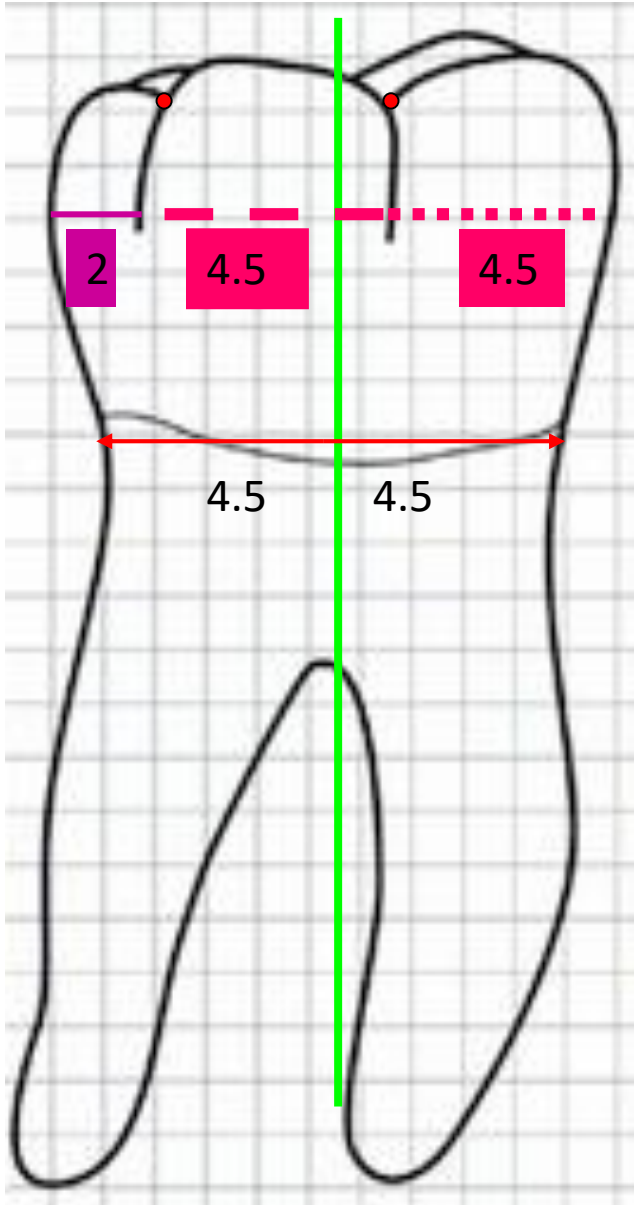


# Occlusal surface





Mesiobuccal=11mm  
Mesiobuccal at  
cervix=9mm



M



- intercuspal=5mm
- buccolingual=10.5mm
- Buccolingual at cervix=9mm

