



# INTRODUCTION TO DENTISTRY



LEC NO. : \_\_\_\_\_ 3

DONE BY : Sara Al-rawadieh

وَقُلْ رَبِّ زِدْنِي عِلْمًا



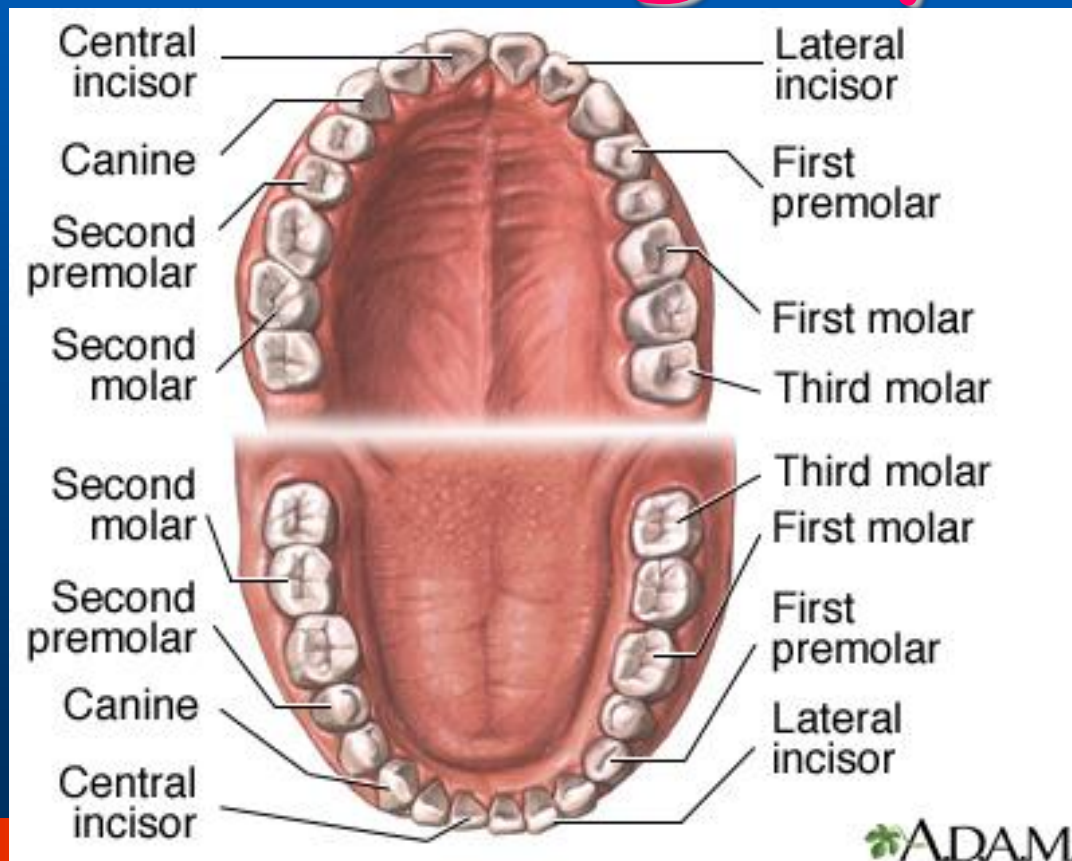
# Tooth classification & numbering systems

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**Dr. Reda Gaber**

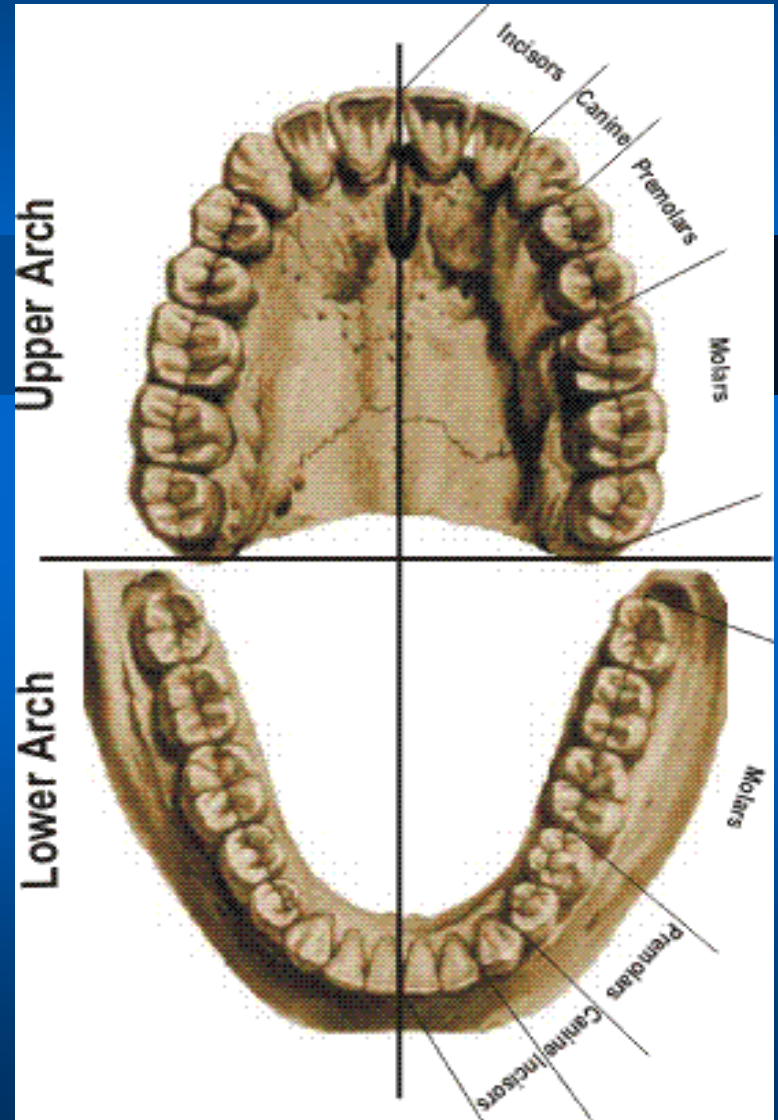
**Associate Professor of Oral Biology  
Faculty of Dentistry**

# Tooth classification & numbering systems





# The Jaws & Dental Arches

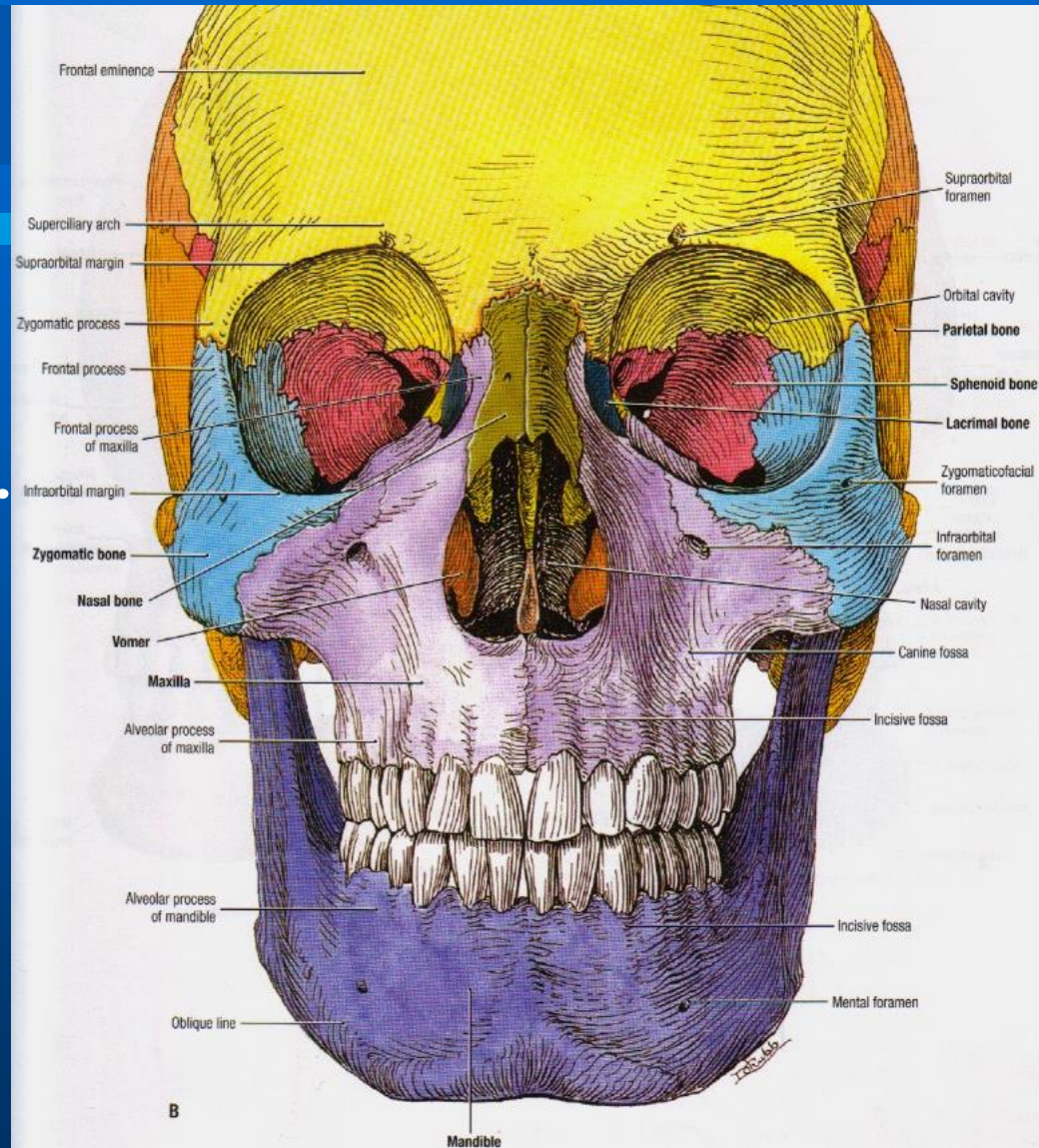




# The Jaws and Dental Arches

- **A. The maxilla** is two bones forming the upper jaw; they are rigidly attached to the skull. (upper arch)

- **B. The mandible** is a horse-shoe shaped bone which articulates with the skull by way of the temporo-mandibular joint the TMJ. = lower Jaw = lower arch = and we can say it's lower Maxilla



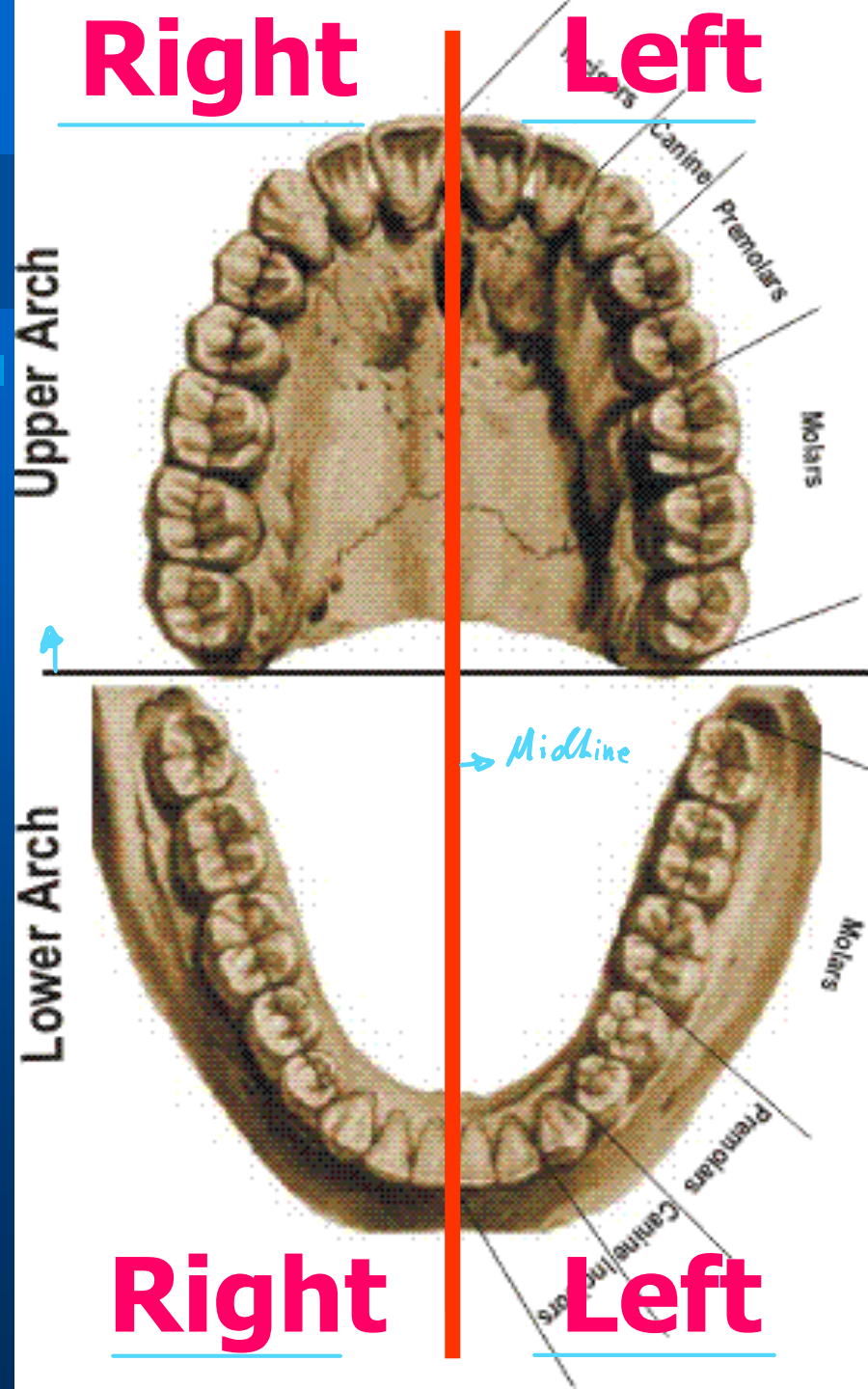
# Quadrants: right & left quadrants

*Right and  
left for patient*

Maxillary right  
and left.

Mandibular right  
and left.

## 4 Quadrants



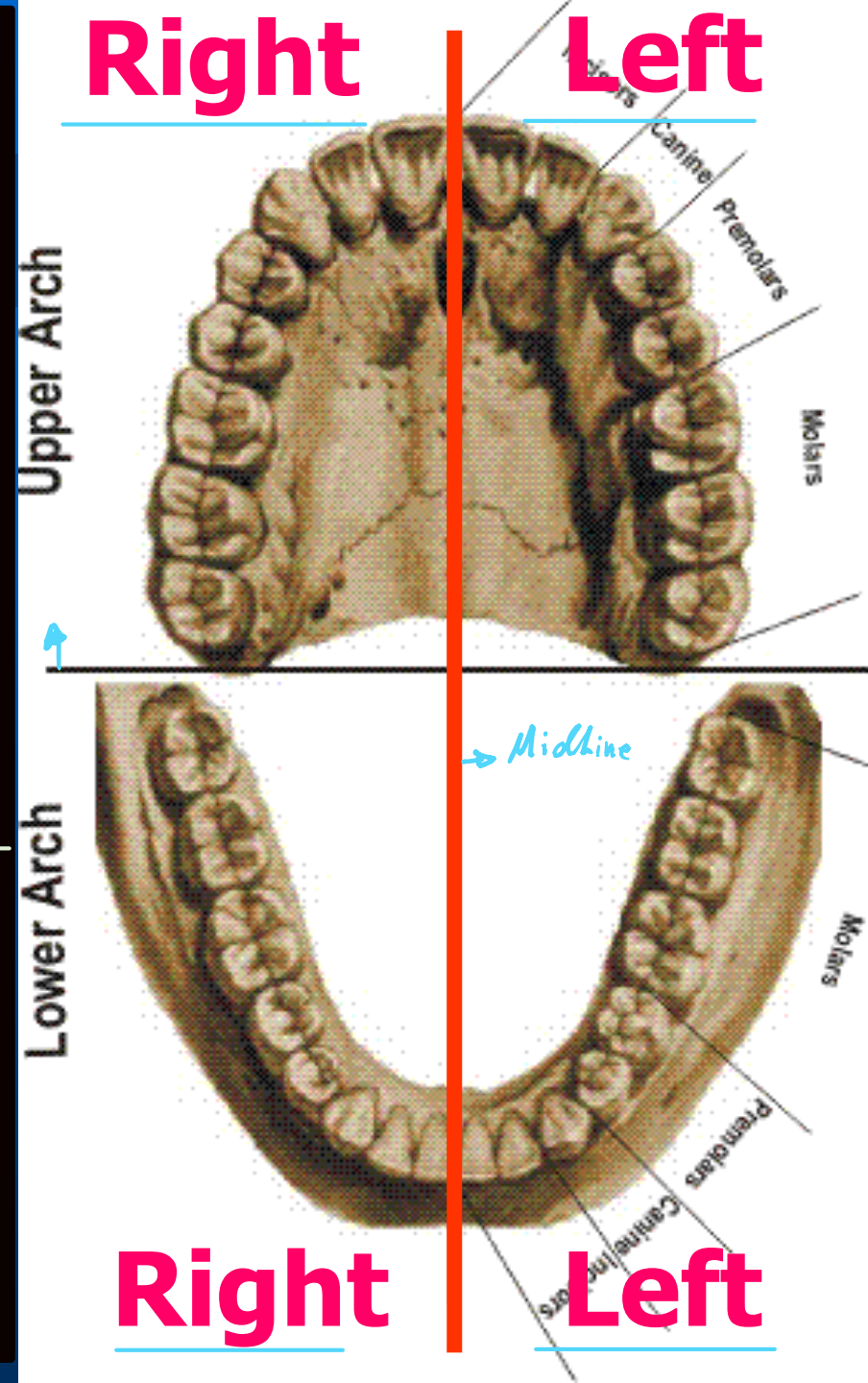


we have 2 line in the oral cavity :-

1- occlusal line which divide the oral cavity to upper and lower.

2- Mid line which divide the oral cavity to left and right.

Left and right for patient





# Types of Teeth



Anterior Teeth  
for

cutting & tearing

← food

↳ upper  
↳ lower

Posterior Teeth  
Tearing & grinding

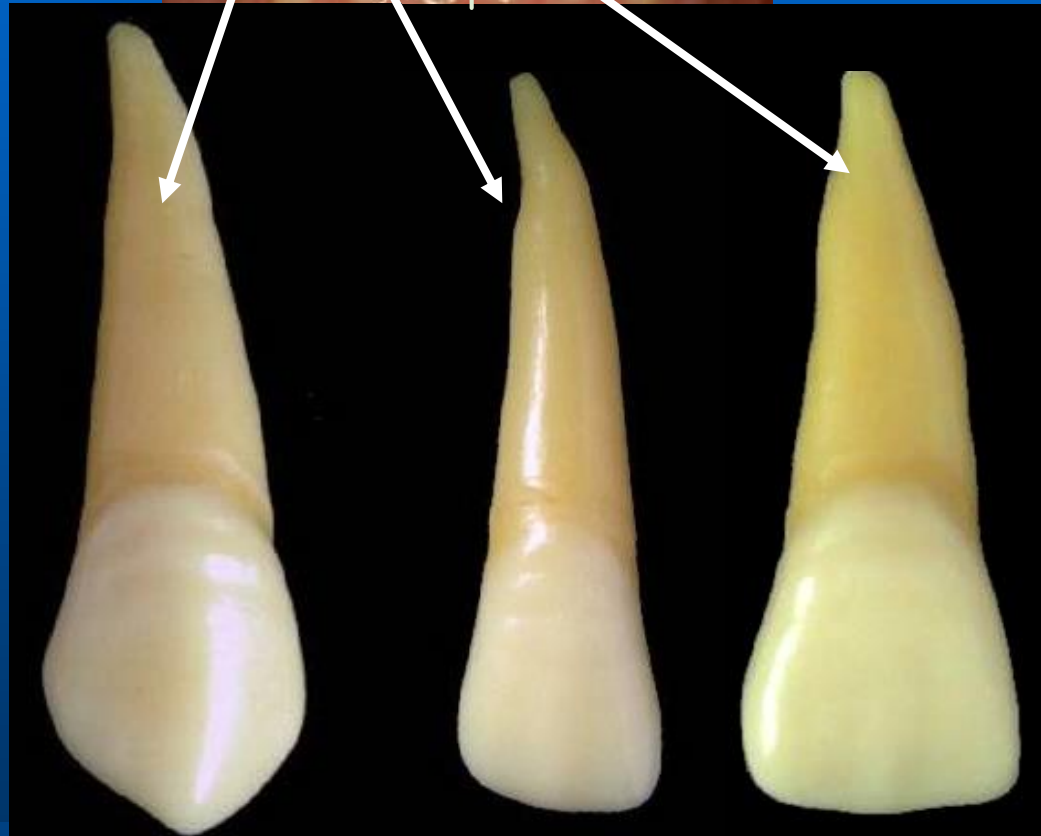
food

↳ upper  
↳ lower

مضغ الطعام



# Anterior Teeth - Upper



Canine

ناب

lateral

Central

Incisors

# Anterior Teeth - Lower



Canine

lateral - Central

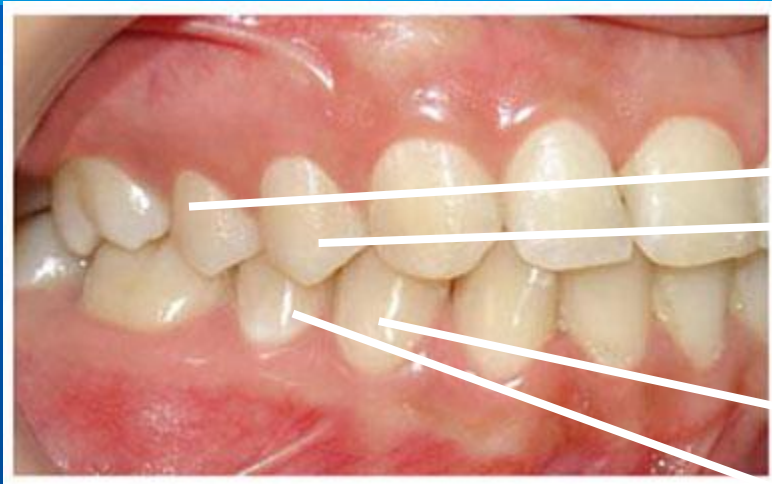
Incisors



فصل

# Premolars:

(in permanent only)



Upper

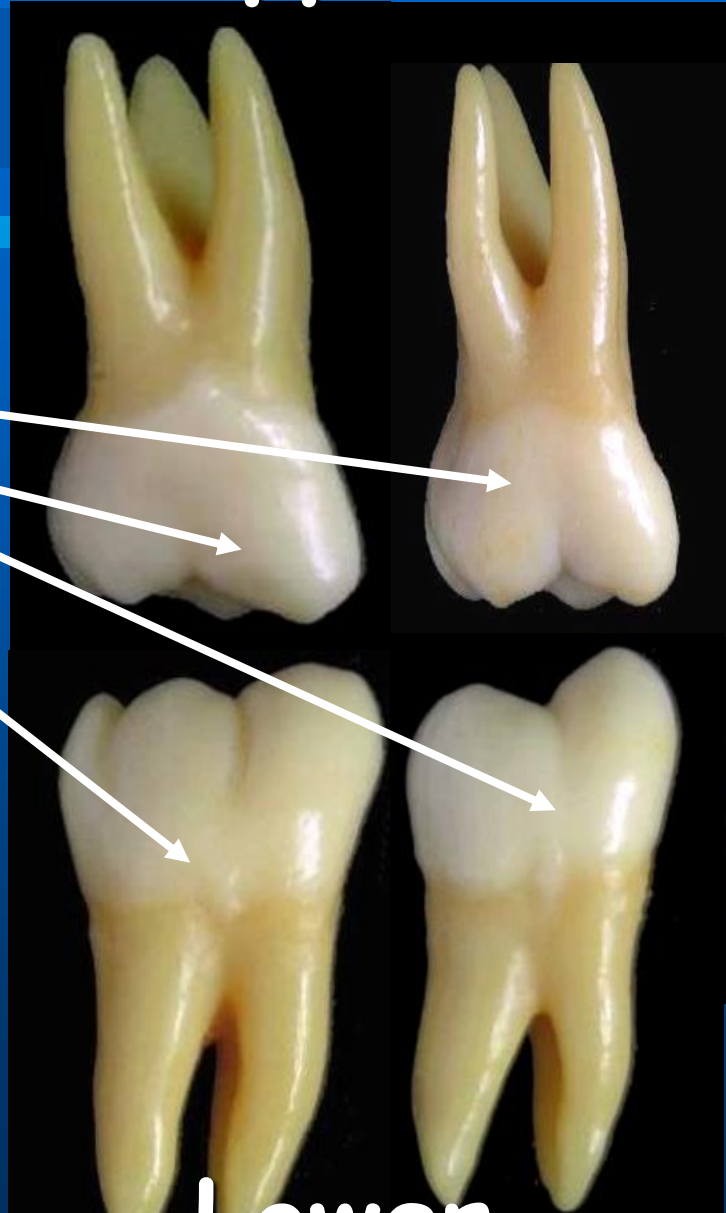


Lower

First premolar <sup>4 upper</sup>  
& <sup>4 lower</sup>  
Second premolar

Upper

Molars: *upper*  
*lower*



First & second

Wisdom tooth =  
Third permanent molar  
*Just in permanent*

Lower

In 1 Quadrant:-

\* In permanent

3 Anterior teeth

2 premolar } posterior teeth

3 molar }

In upper or lower (each arch)

6 Anterior teeth

2 premolar } posterior teeth

6 molar }

In teeth

12 Anterior teeth

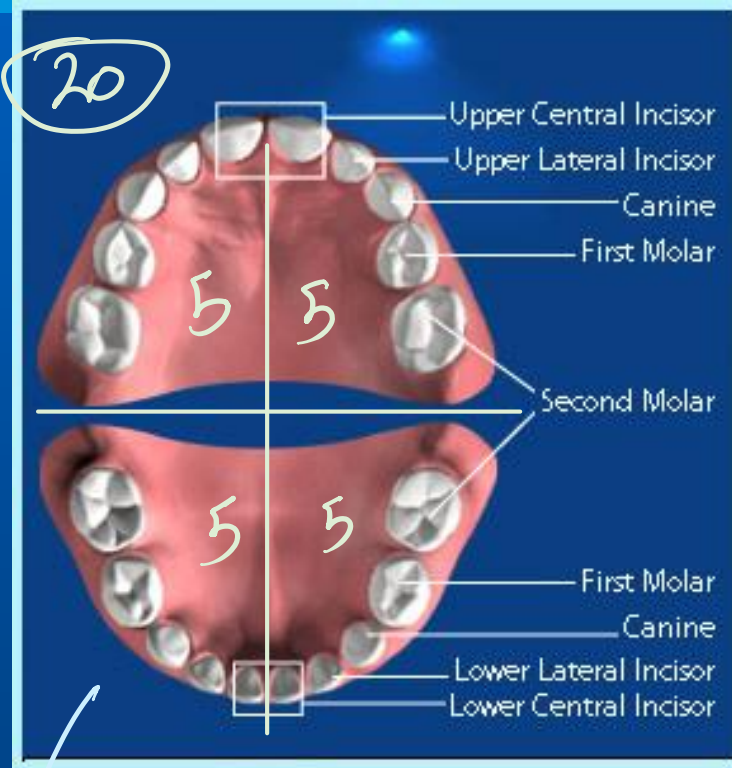
8 premolar } posterior teeth

12 molar }

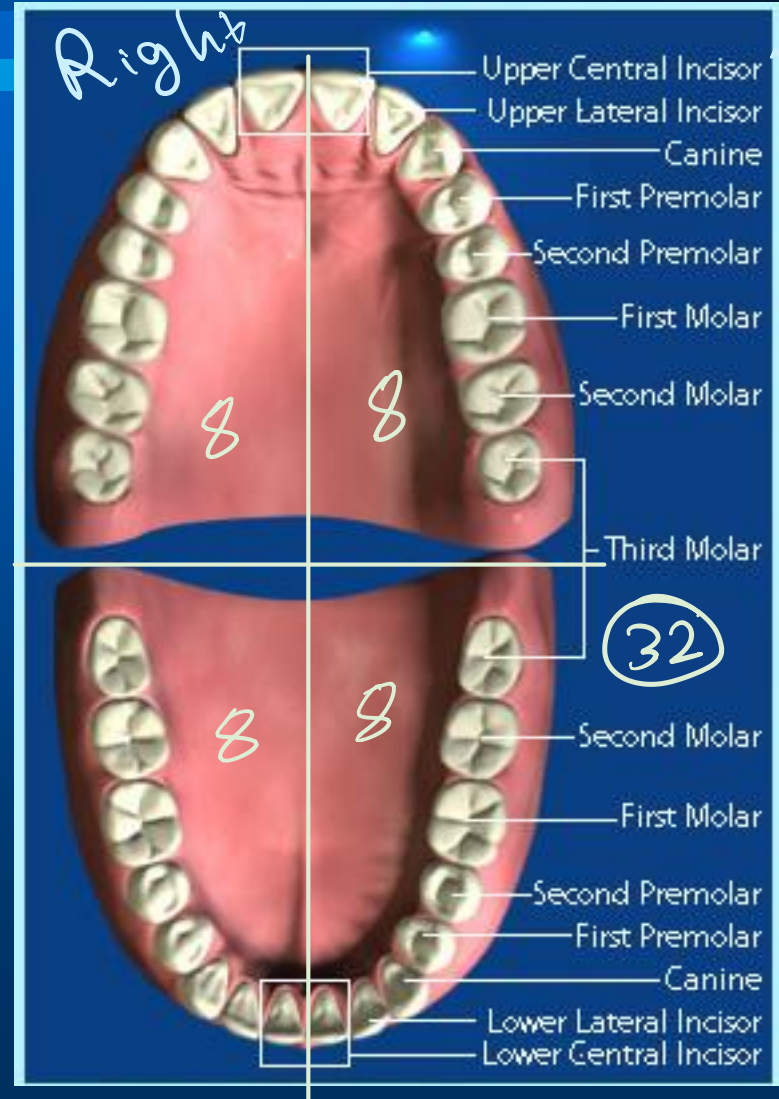


# Types of Dentitions:

## Primary & Permanent Dentition



no premolar  
no third molar



dent

# Types of Dentitions:

## I-Primary Dentition

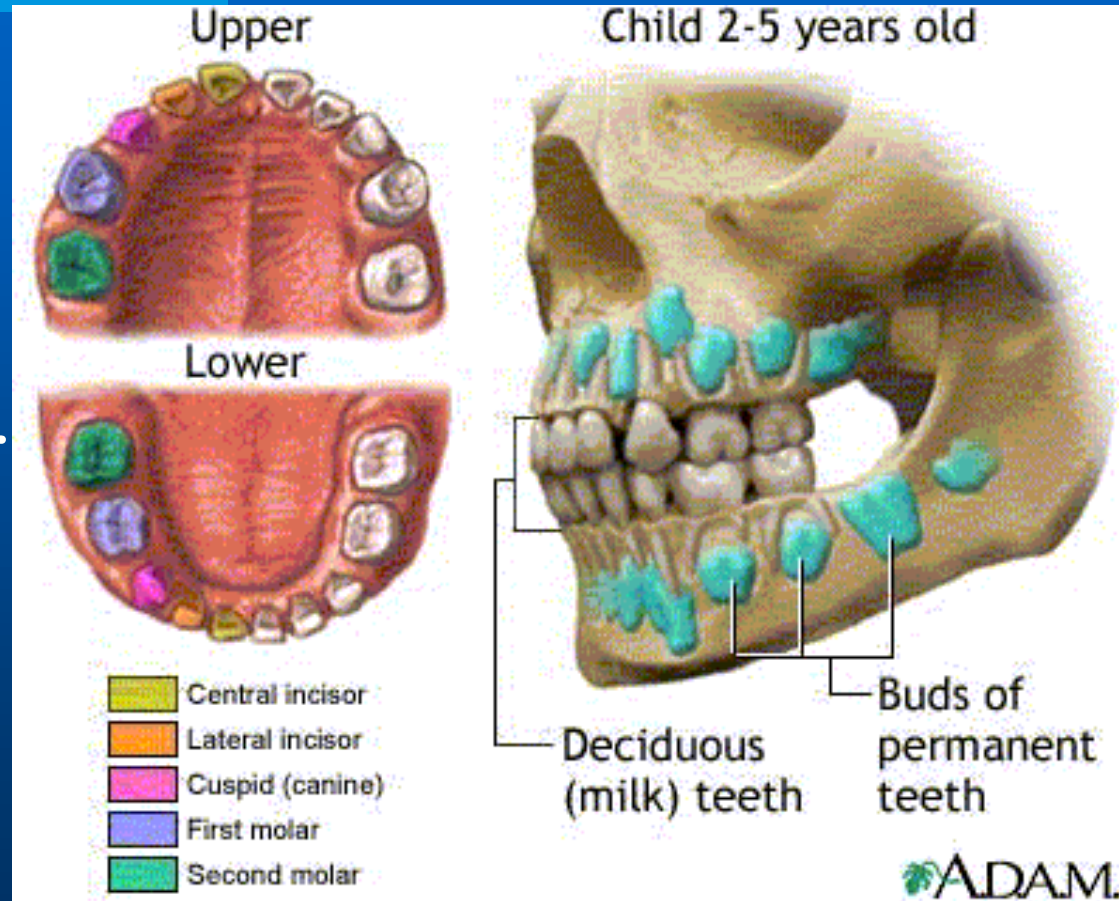
①  
②  
③  
Deciduous ,baby, milk teeth:

- Twenty ( 20 ) primary teeth.
- 10 in each arch
- 5 in each quadrant

In function:

2 years ⇒ 12 years

*no premolar*



# I-Primary Dentition



*2 years → 6 years*







→ primary and permanent  
لانه يكون عندي

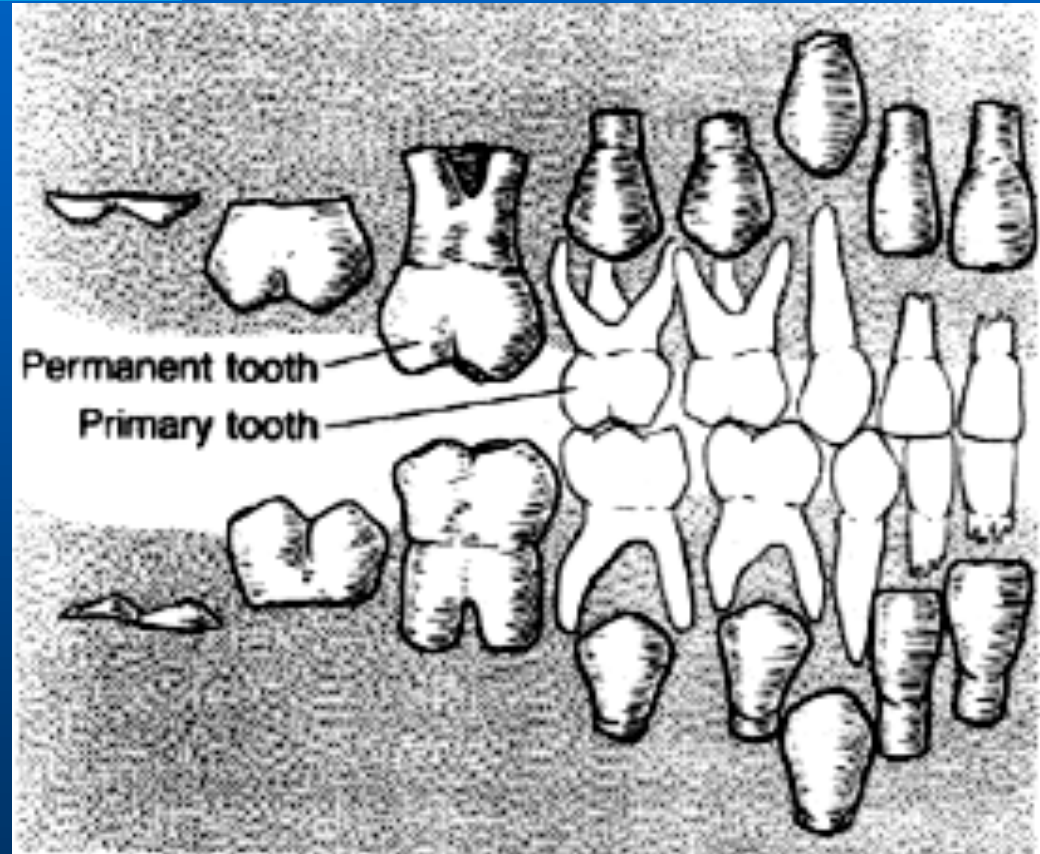
# Mixed Dentition Period

6 years → 12 years



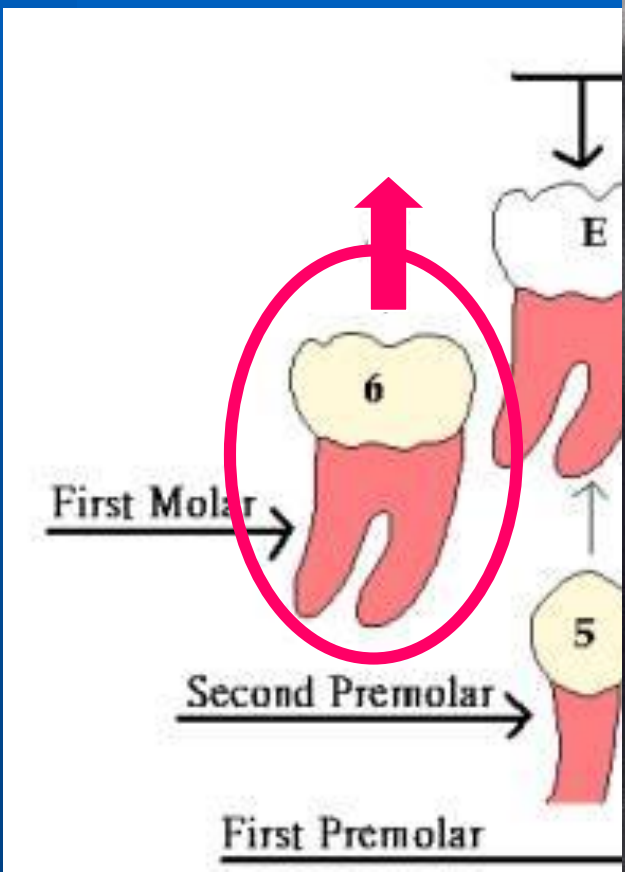
Eruption  
of  
first  
permanent  
molar

Shedding  
of  
last  
primary  
molar

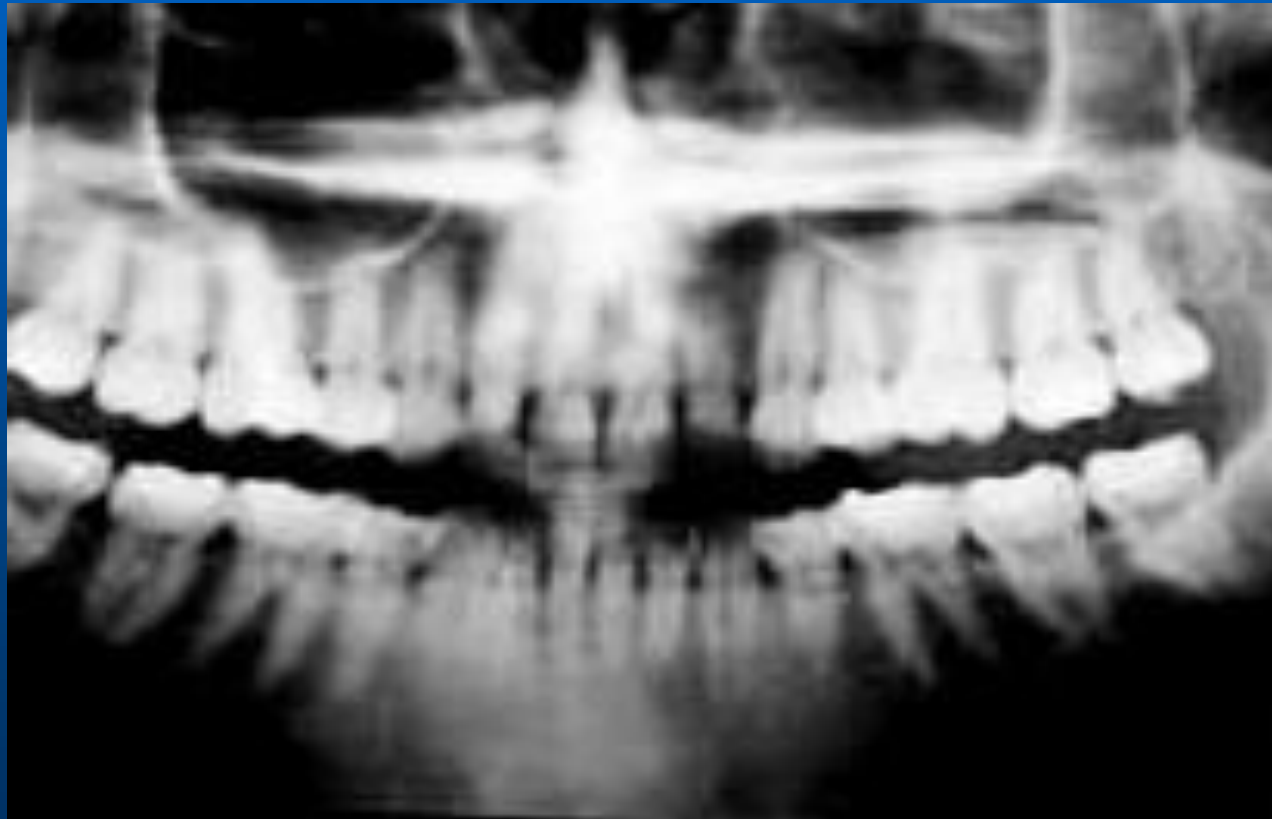


تفصیر

6 years → eruption of first permanent molar



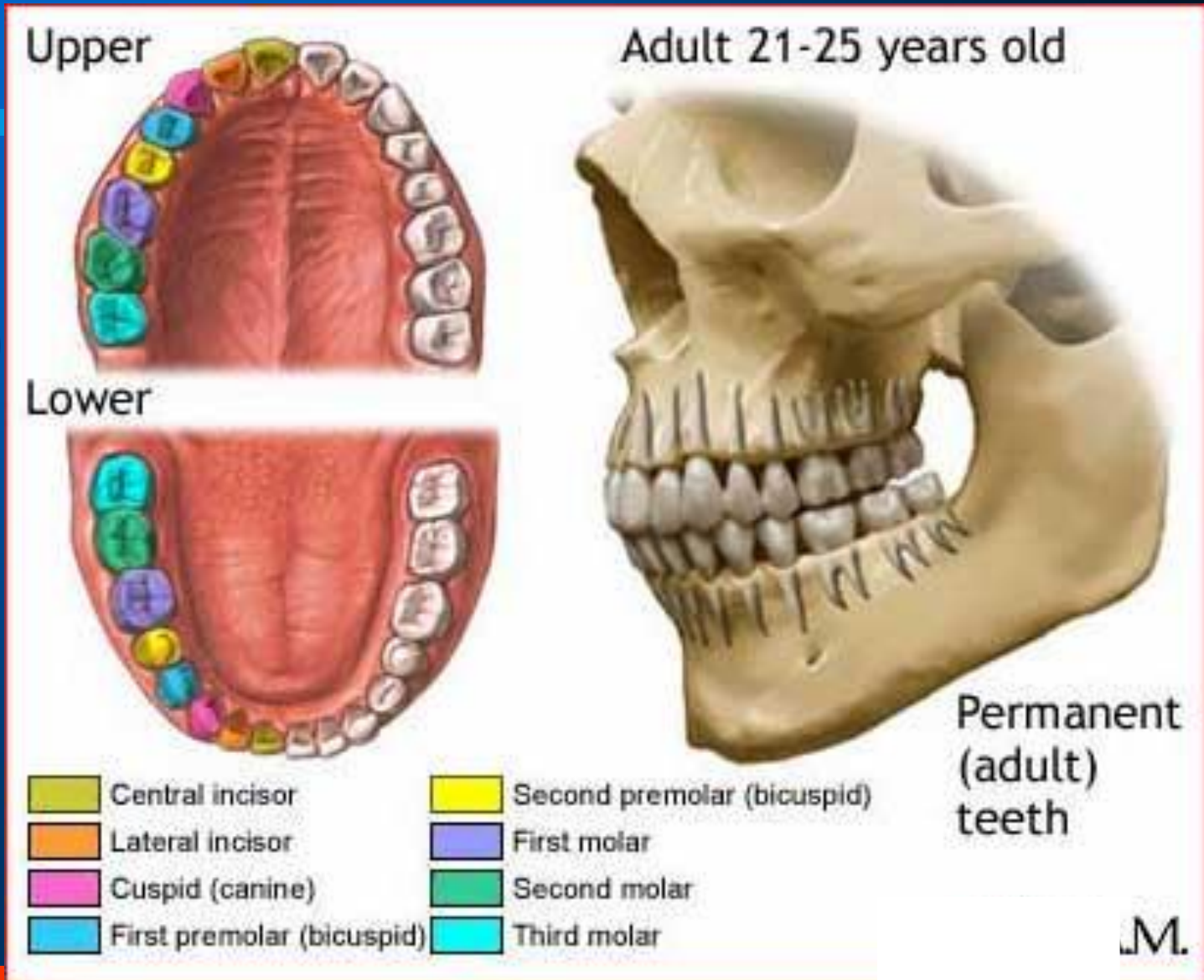
12 years <sup>سقوط</sup> ⇒ Shedding of last primary molar



# II-Permanent Dentition

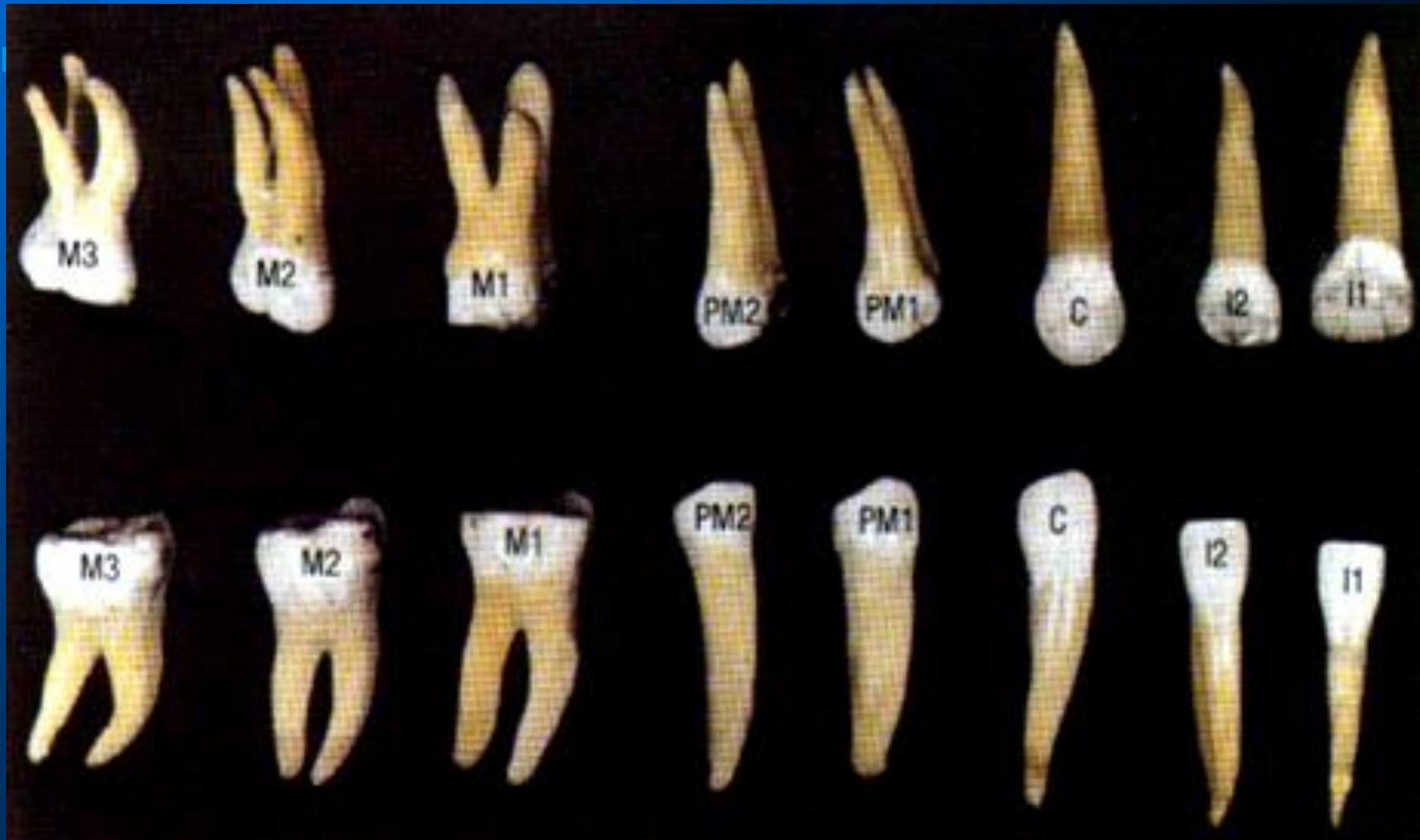
In  
function:  
12 years

↓  
through  
out  
life





# Permanent Teeth



# The Dentitions

Humans have two dentitions

1-The primary dentition: (deciduous)

*very important*

20 teeth. 10 maxillary and 10 mandibular.

5 teeth are present in each quadrant.

2 incisors.

1 canine.

and 2 molars.

*type and number in one half in oral cavity*

**The dental formula is:**

$\boxed{2 \quad 1 \quad 2}$  → in upper half

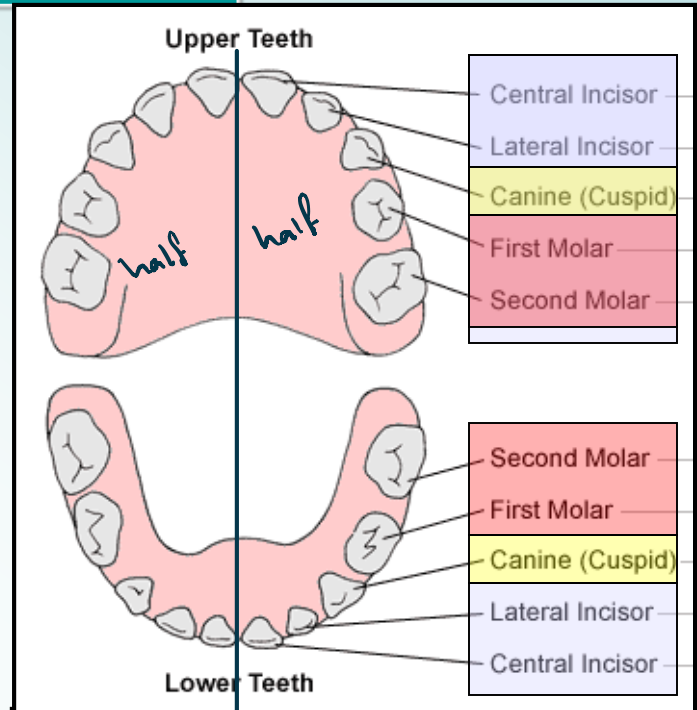
I --- C --- M --- = 10

$\boxed{2 \quad 1 \quad 2}$  → in lower half

*incisors*

*canine*

*Molars*



# The Dentitions

## 2-The permanent dentition:

(secondary, adult or **succedaneous**) مخاطباتي

32 teeth, 16 maxillary and 16 mandibular.

8 teeth in each quadrant are Present.

2 incisors.

1 canine.

2 premolars.

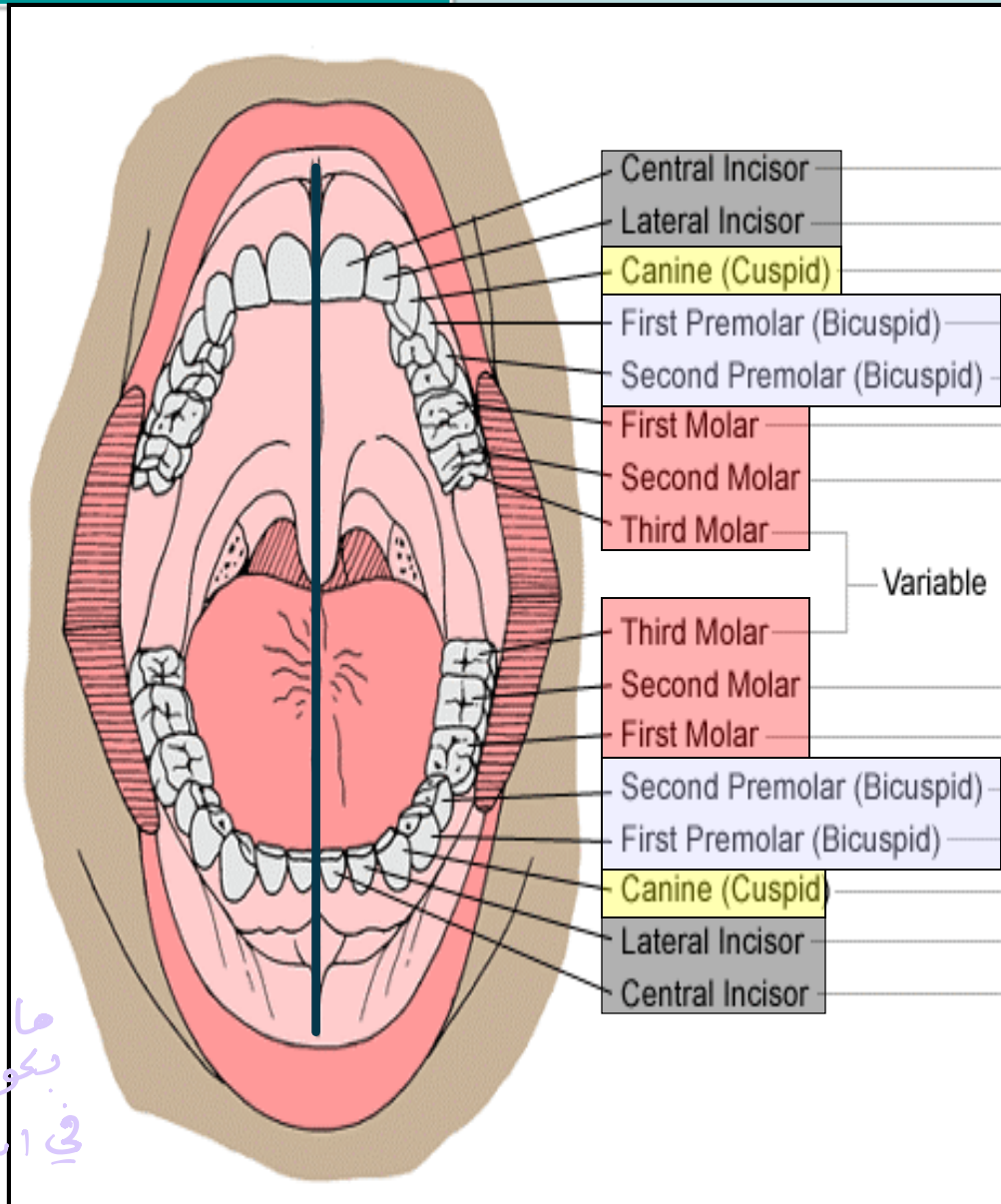
and 3 molars.

**The dental formula is :**

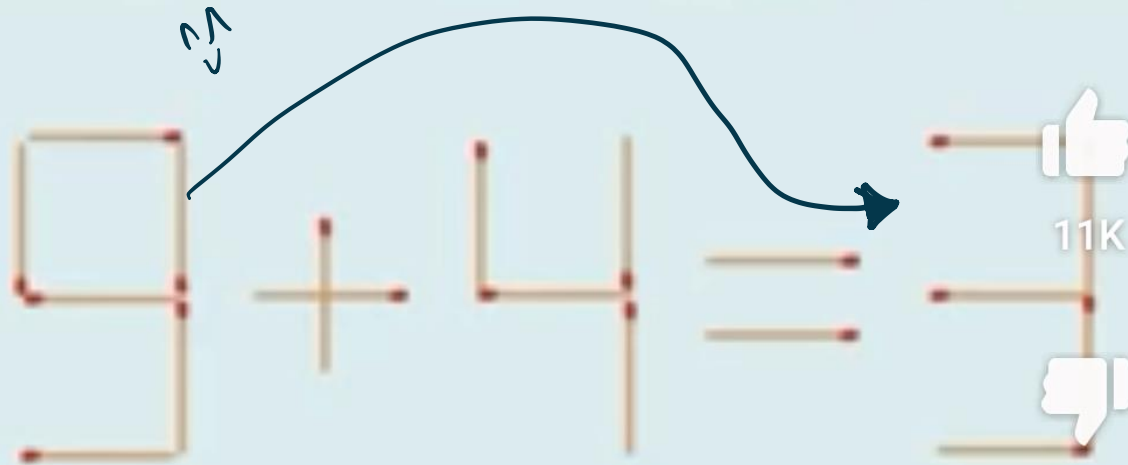
$$\begin{array}{ccccccc}
 2 & 1 & 2 & 3 & & & \\
 I & C & PM & M & = & 16 & \\
 2 & 1 & 2 & 3 & & & 
 \end{array}$$

*Prmolar*

The **permanent molars** are not preceded with deciduous teeth so they may be termed as **non-succedaneous teeth**. ما يكون في اسنان قبلهم



لغز معقد جدا  
صحح هذه المعادلة  
بتحرك عود  
ثقاب واحد فقط؟



11K



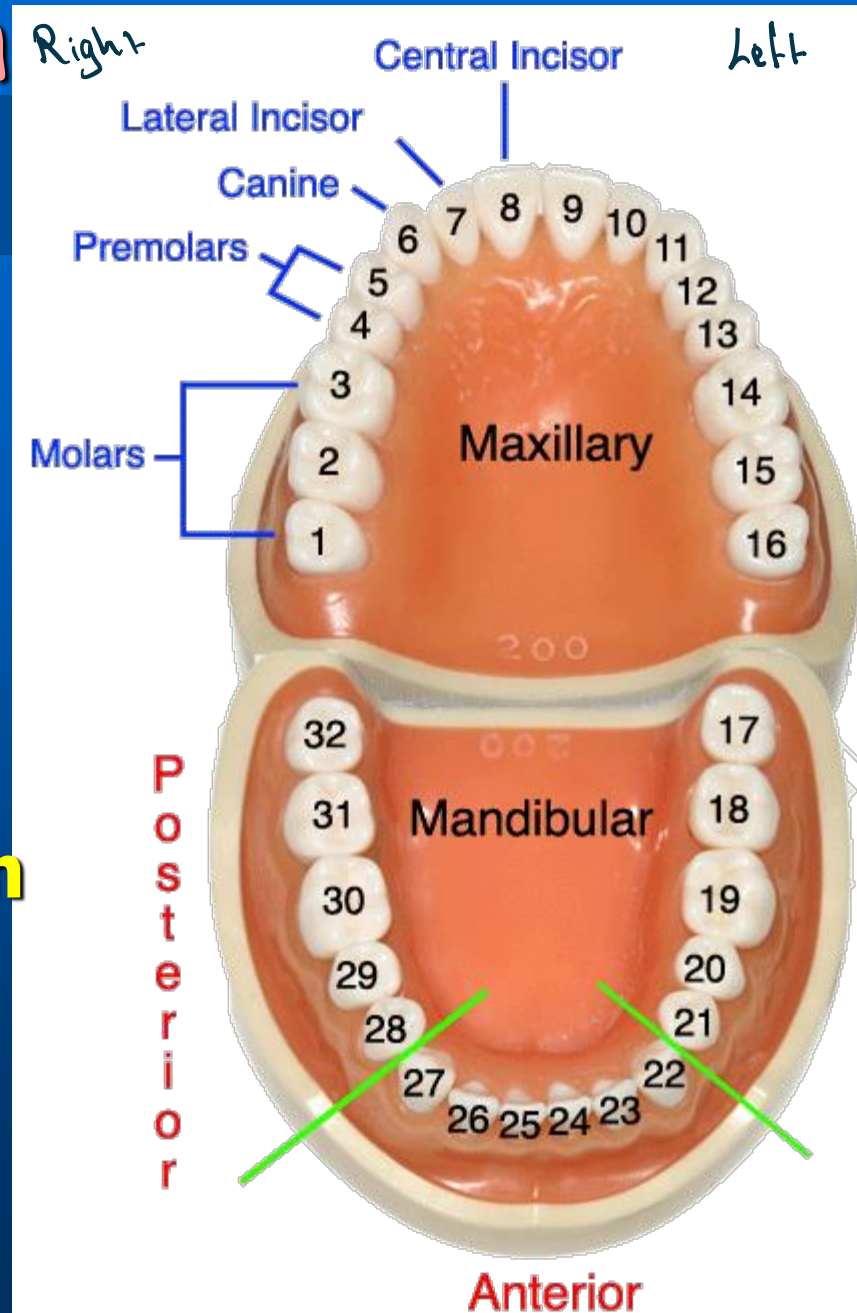
Dialko



# Tooth Identification Systems

Numbering or Coding Systems

1. Universal System
2. Palmer Notation System
3. International FDI System (two digit system)



طائفة الاسف :-

type of Dentition

①

permanent  
or  
primary



②

upper  
or  
lower



③

Right  
or  
left



④

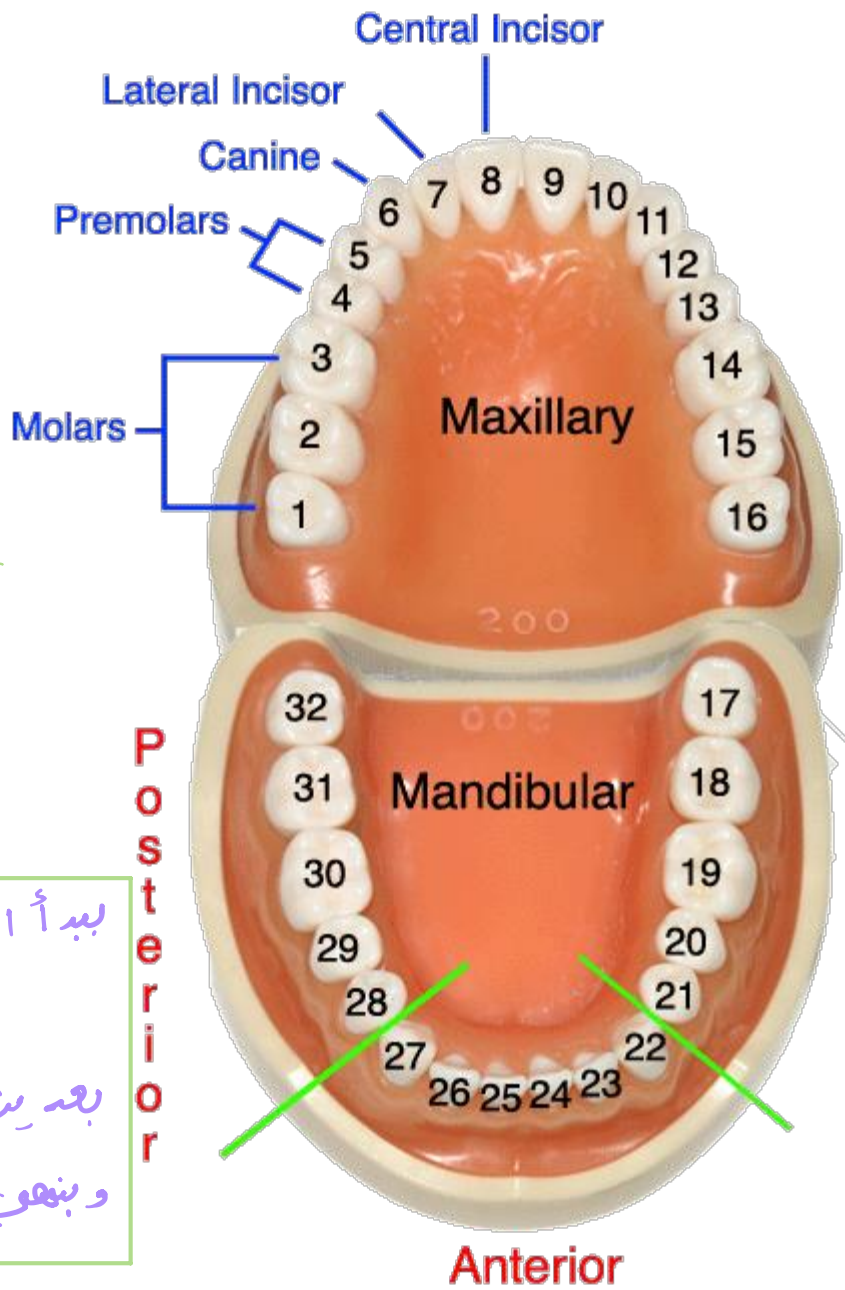
tooth  
name

كل سن رقم واحد

# 1- Universal system for Permanent Teeth

number

يبدأ العد من third molar من  
 مع عقارب الساعة  
 بعد من بكل من third<sup>molar</sup> من  
 وينتهي عند third molar من

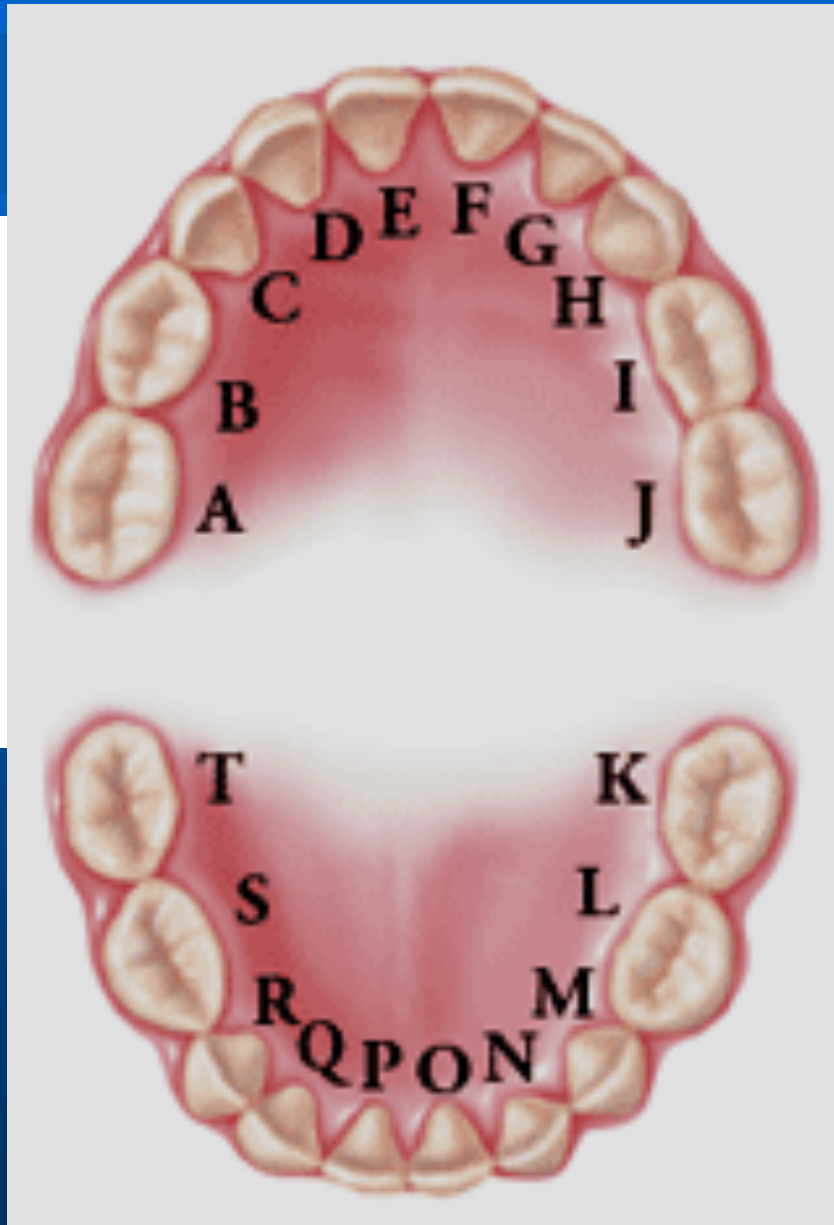




permanent

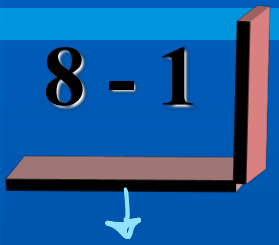
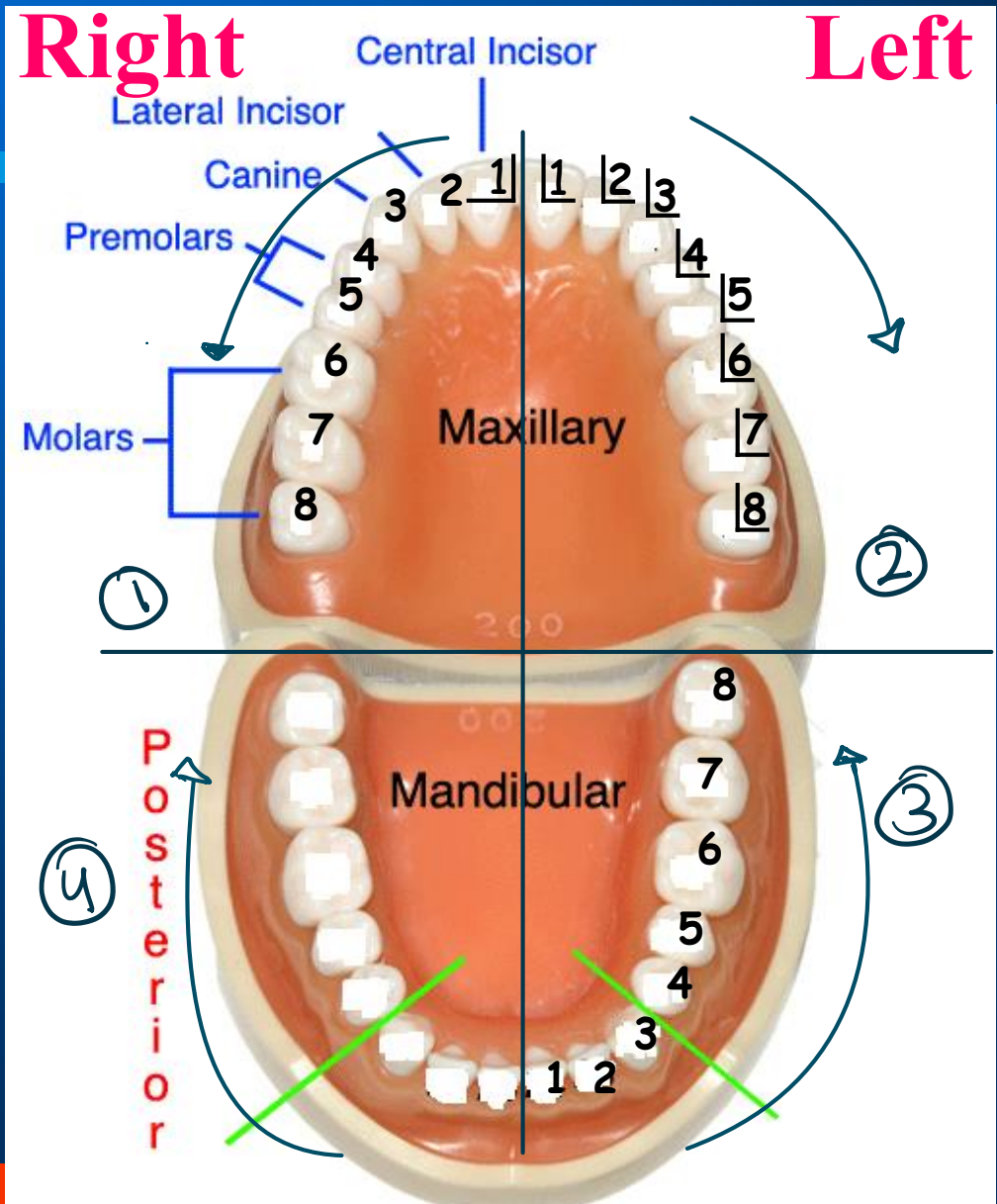
نفس فكرة ترقيم

# Universal System for Primary Teeth (A-T)

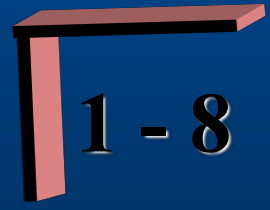
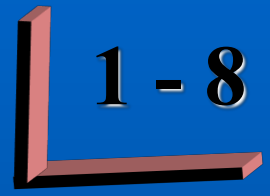


# 2-Palmer Notation System for Permanent Teeth

ارقام



بندی علی quadrants



It represents the four quadrants of the dentition

as if you are facing the patient.

In upper right



In upper left



In lower right



In lower left



Horizontal and vertical lines = symbol for the quadrant

The *permanent teeth* are numbered from 1-8 on each side from the **midline.**

central incisor

Upper right

8 7 6 5 4 3 2 1

Upper left

1 2 3 4 5 6 7 8

8 7 6 5 4 3 2 1

Lower right

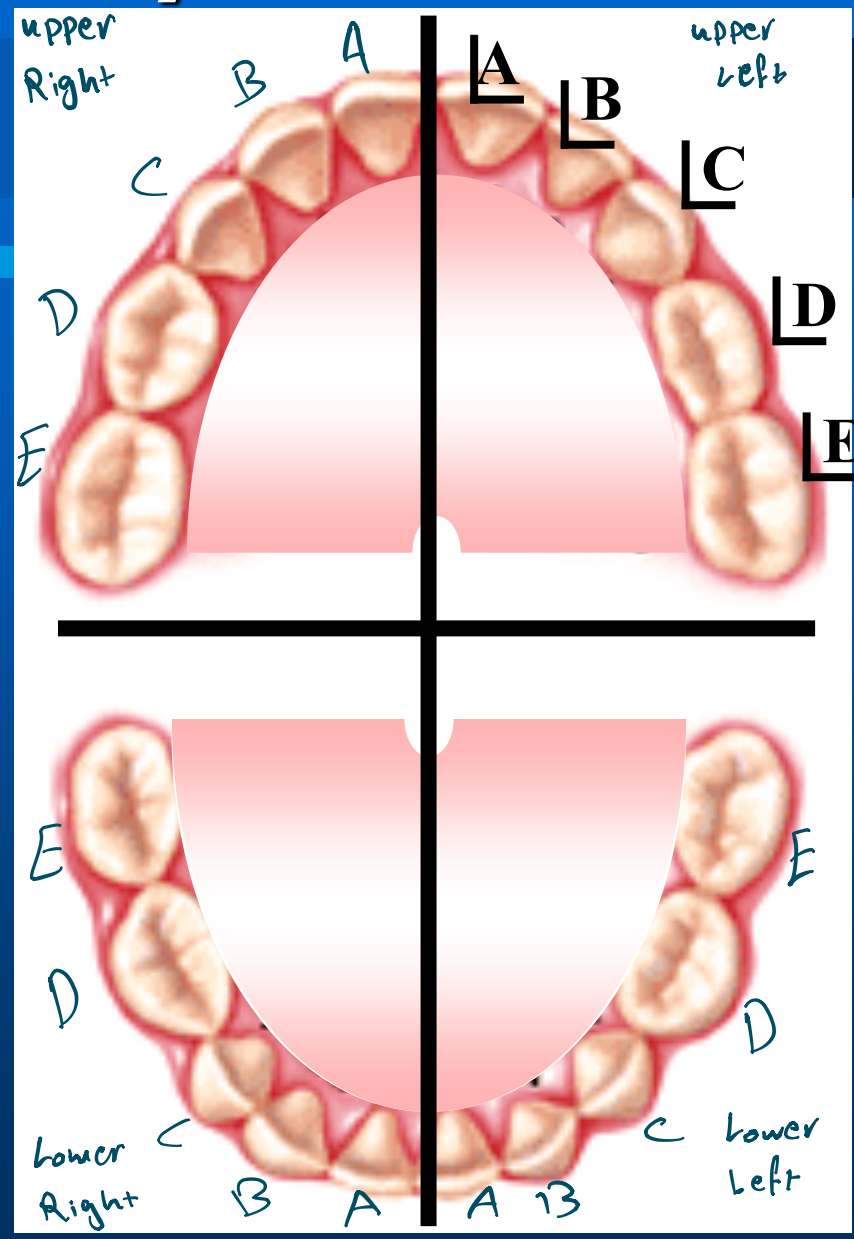
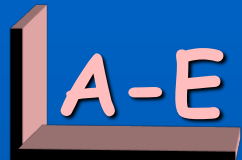
1 2 3 4 5 6 7 8

Lower left



# Palmer Notation System

## for Primary Teeth



**The deciduous teeth are lettered from A-E on each side from the midline**

**Upper right**

**E D C B A**

**Upper left**

**A B C D E**

**E D C B A**

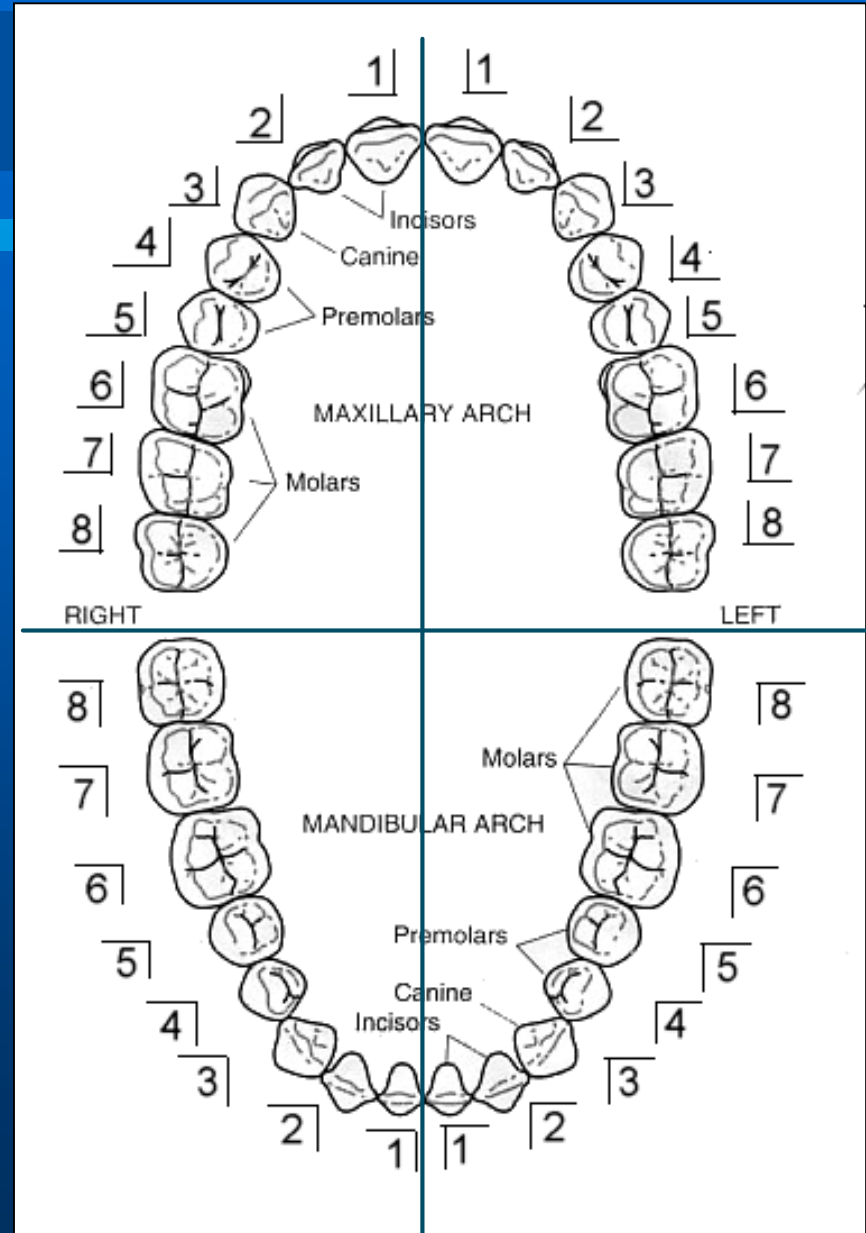
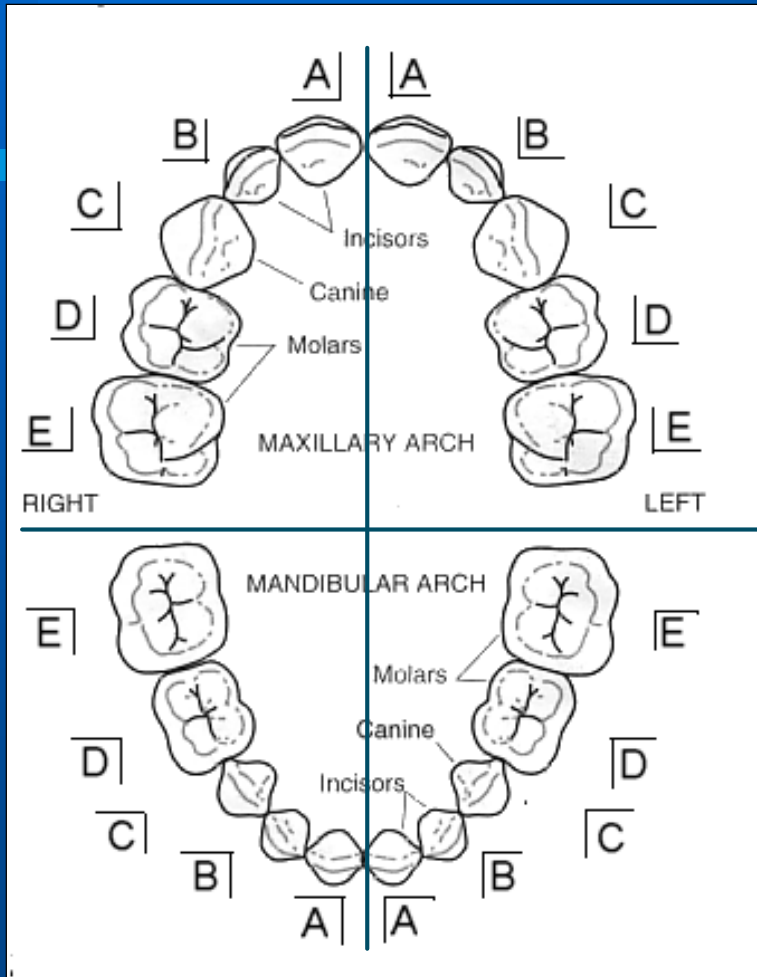
**A B C D E**

**Lower right**

**Lower left**

# Palmer Notation System

دائماً ارقام ← permanent  
احرف ← primary



# 2-The International Numbering System

## “FDI” Federation Dentaire International (the two digit system)

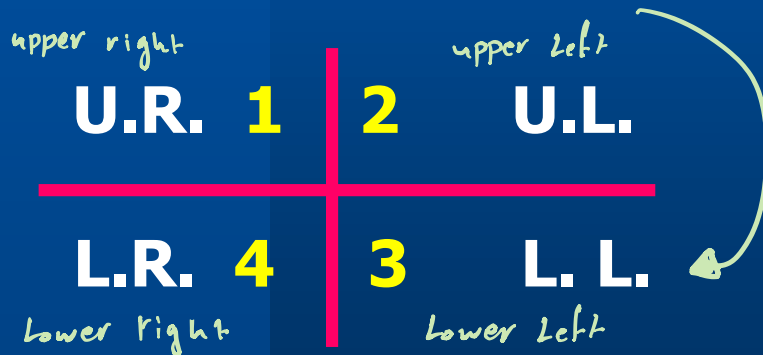
مكون من رقمين

The teeth are designated by using two-digits:

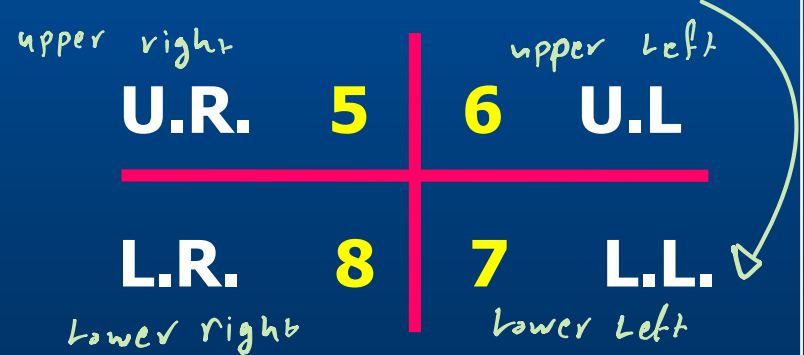
quadrant and dentition اول رقم يدل على

- a. The **first digit** of the code is located at the left side of the number and indicates the **quadrant**:

### In permanent dentition



### In deciduous dentition





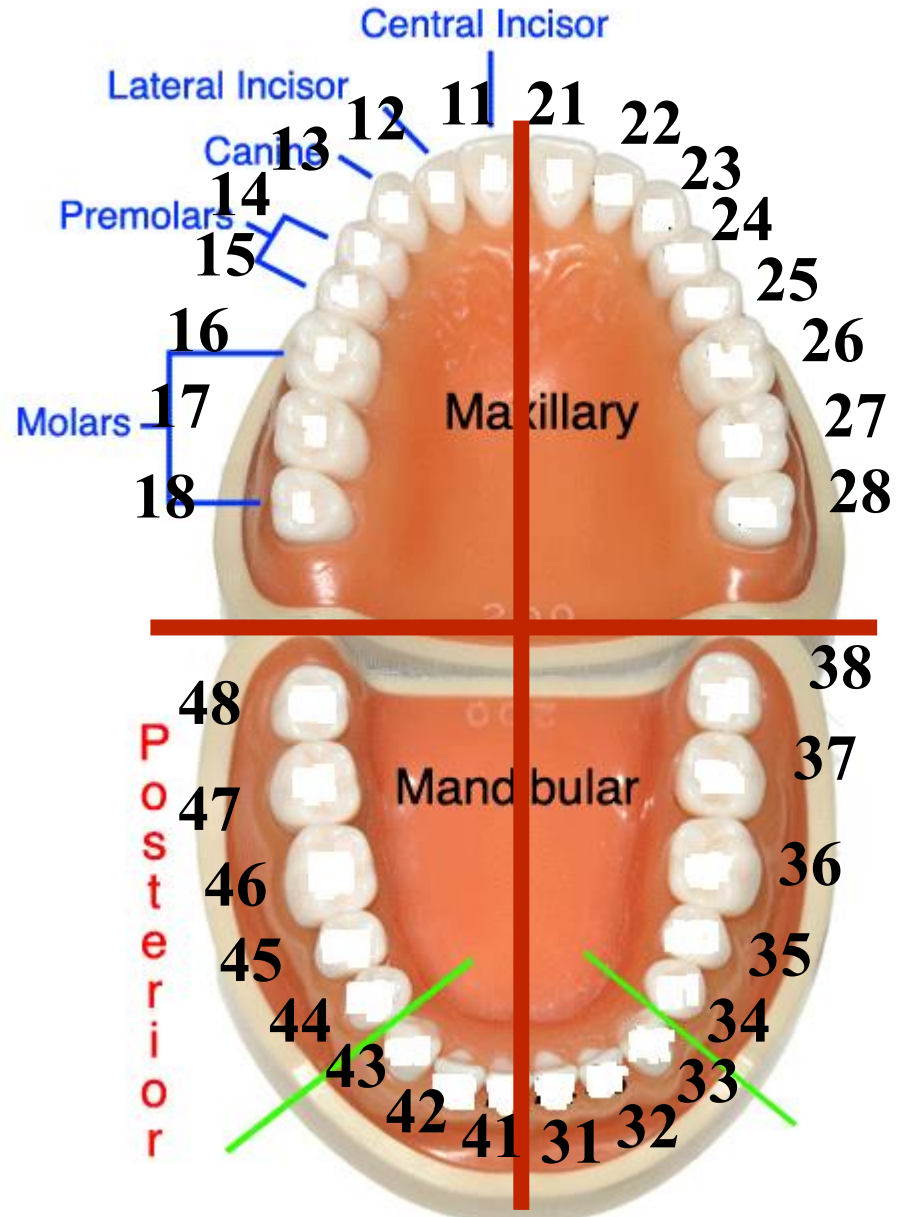
# 3-International System (Two Digit System) "FDI"

Federation Dentaire  
International

First Digit = quadrant



## For permanent Teeth



# Second Digit = Tooth number in the quadrant

b- The **second digit** is located at the right side of the number and indicates the number of the tooth in the quadrant.

☀ The two digits should be pronounced separately.

بہ حکیم بنی  
میں

## Permanent teeth

18 17 16 15 14 13 12 11

21 22 23 24 25 26 27 28

48 47 46 45 44 43 42 41

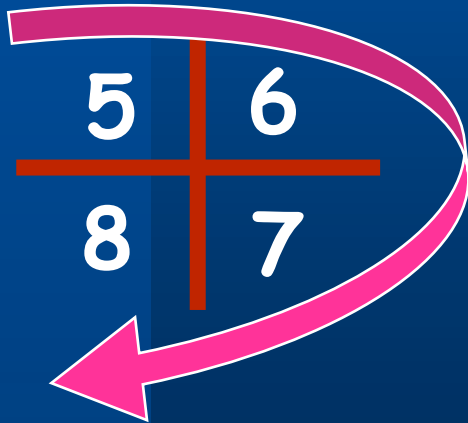
31 32 33 34 35 36 37 38

# 2-International System (Two Digit System)

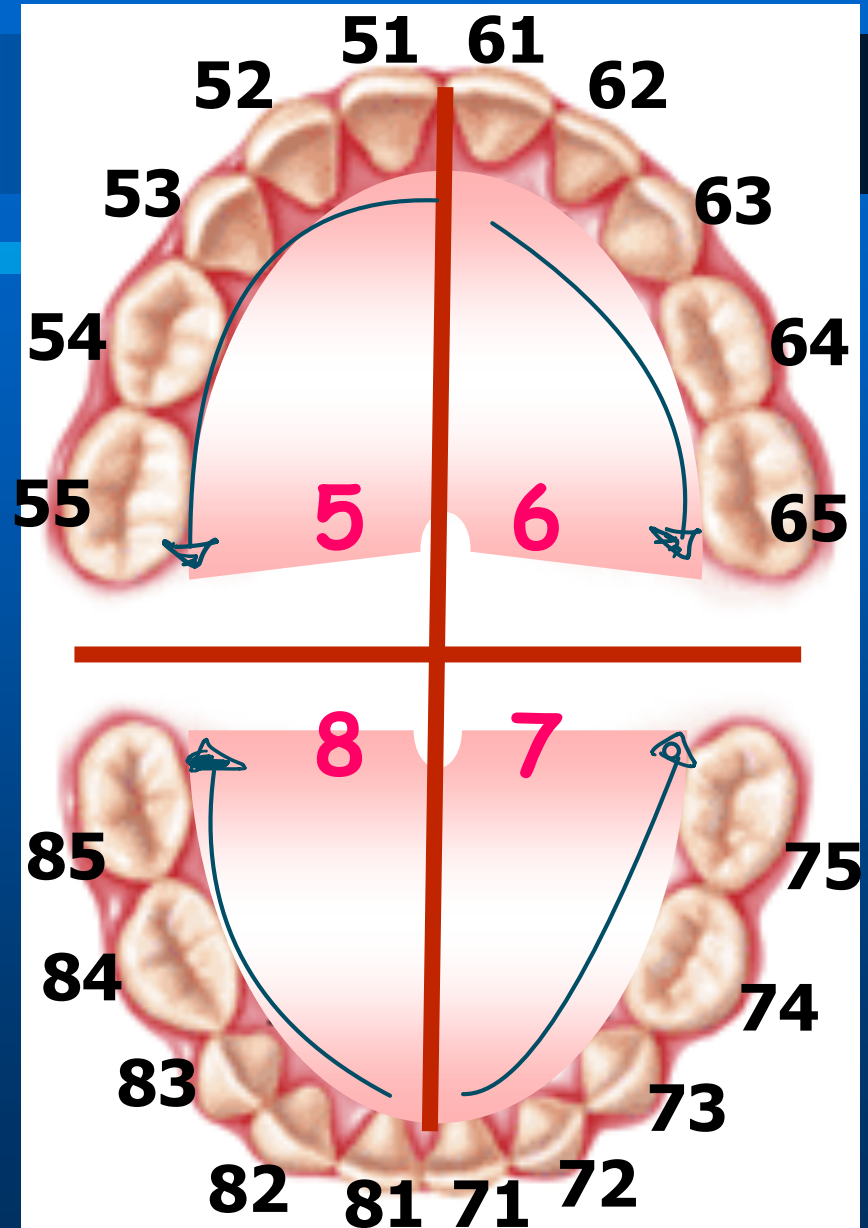
“FDI”

Federation Dentaire  
International

First Digit = quadrant



## For Primary Teeth



# For Primary Teeth

5 | 6

First Digit = quadrant *and dentition*

8 | 7

Second Digit = Tooth number in the quadrant

## Primary Teeth

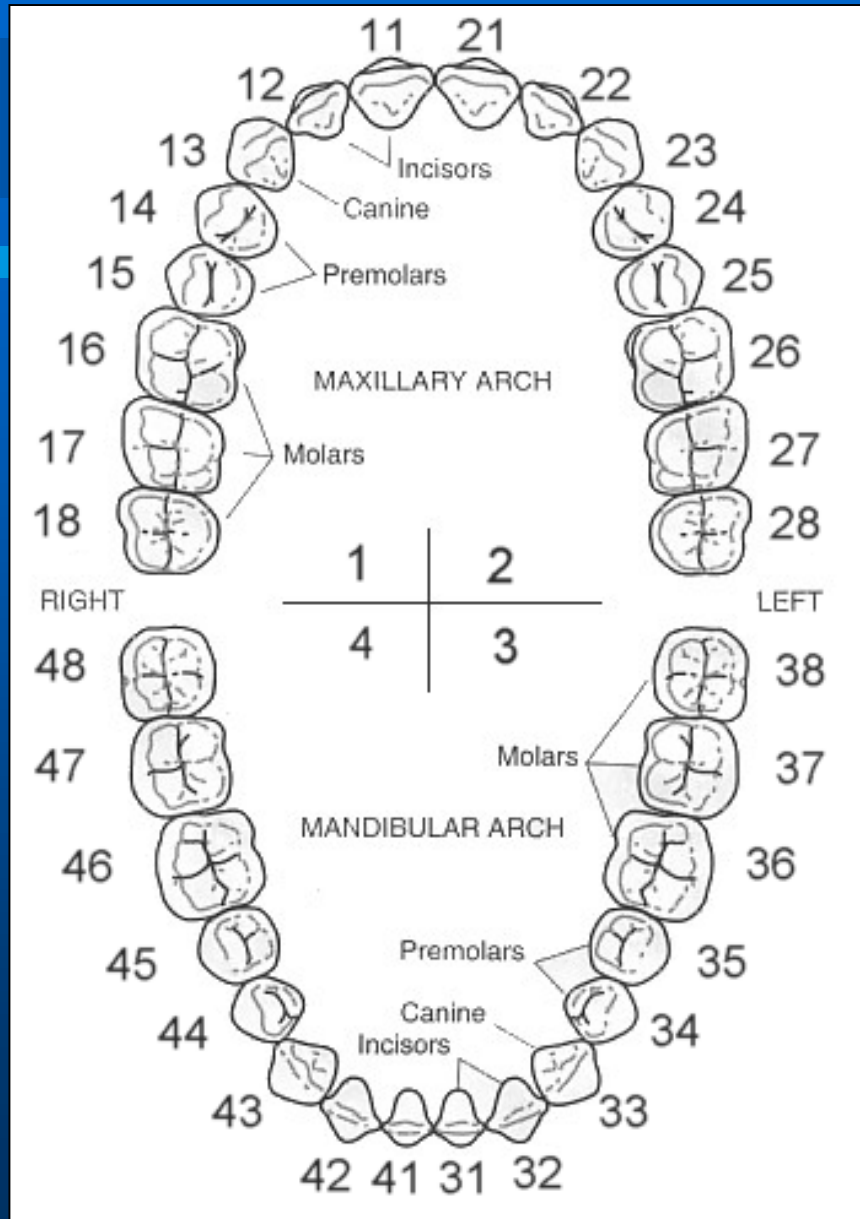
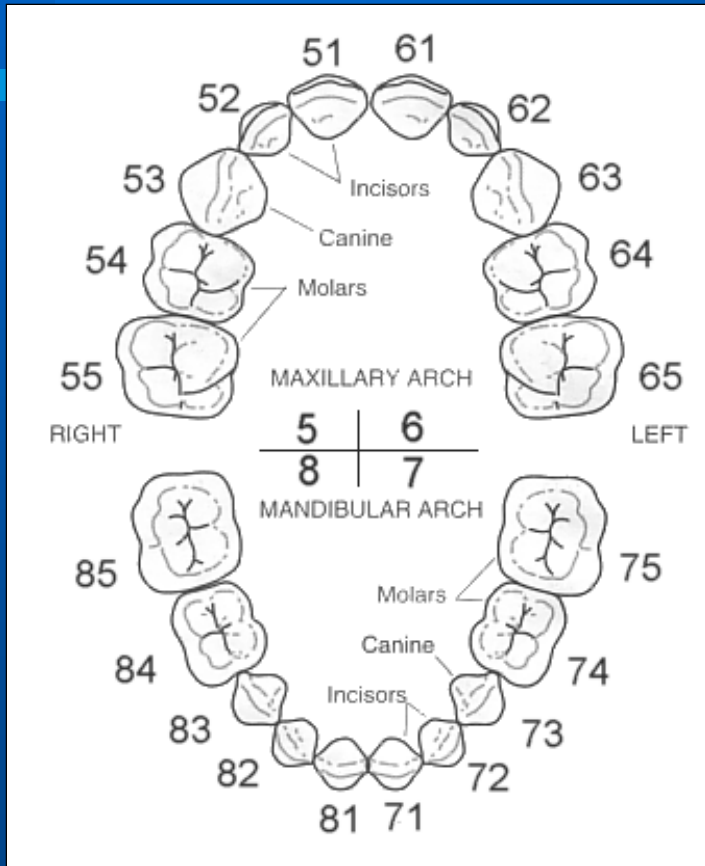
55 54 53 52 51

61 62 63 64 65

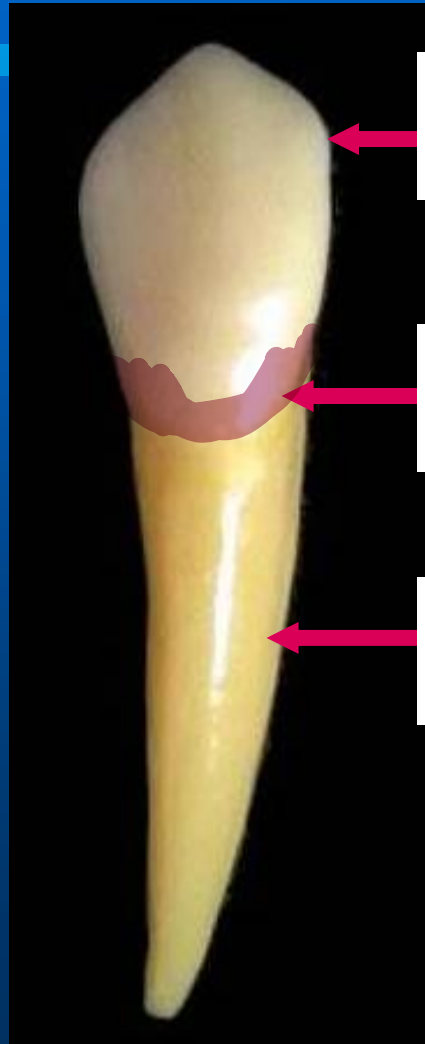
85 84 83 82 81

71 72 73 74 75





# Macro anatomy of Teeth



**crown**

**neck**

**root**

الجزء المضاف

# Single-rooted

# Multi-rooted

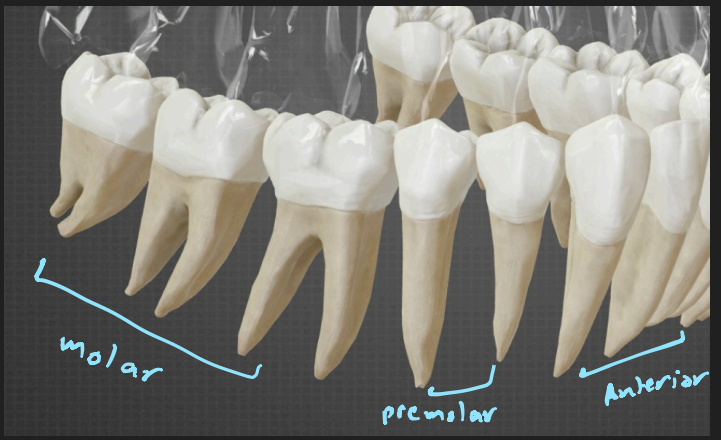


single rooted  $\rightarrow$  Anterior tooth + all premolar except upper first molar in right and left

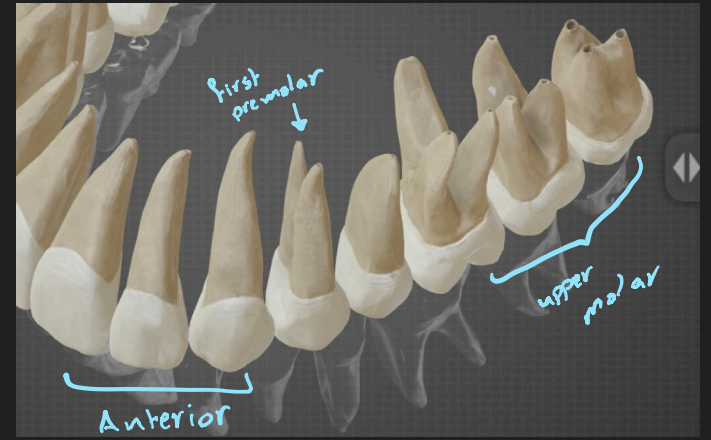
two rooted  $\rightarrow$  first premolar in upper and all molar in lower

Multi rooted  $\rightarrow$  all molar in upper

Lower



upper





THANK YOU

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[reda@staff.hu.edu.jo](mailto:reda@staff.hu.edu.jo)



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