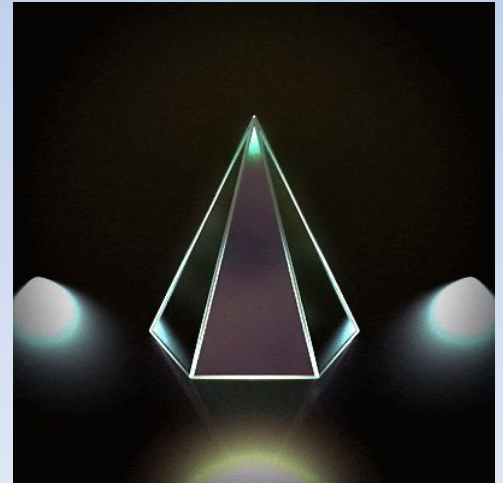


# Lesson about Pyramid

**Class: 3rd C**

**School: I.C.S. "S. Casella" Pedara**

**Teacher: Maria Stella Bolignano**



**What do you  
wonder about  
pyramid?**



Students, write your response!

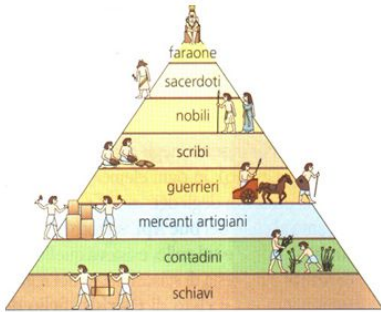


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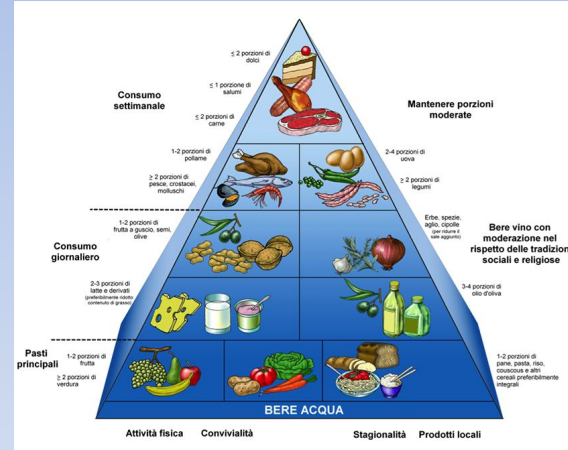
# PYRAMID: EXAMPLES



## EGYPTIAN PYRAMID

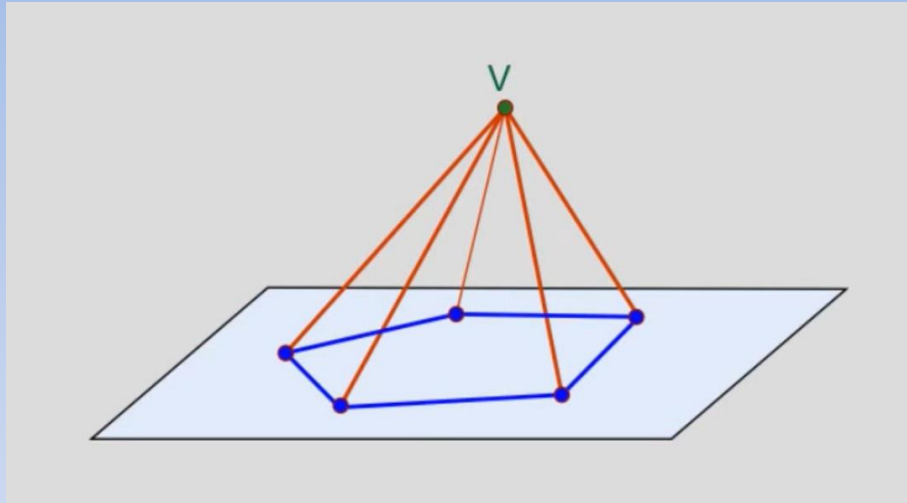


## SOCIAL PYRAMID



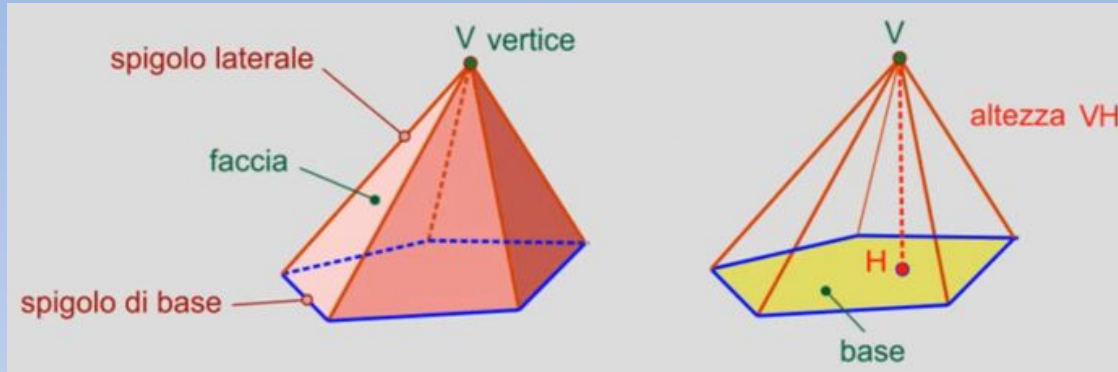
## FOOD PYRAMID

# PYRAMID



The **pyramid** is a **polyhedron** delimited by a polygon (base) and by as many triangles, as the sides of the polygon, having the vertex in common.

# PYRAMID



**Base:** the base polygon

**Face:** each triangle

**Vertex:** common vertex of the triangles

**Side edge:** Each side shared by a pair of triangles

**Base edge:** each side of the polygon

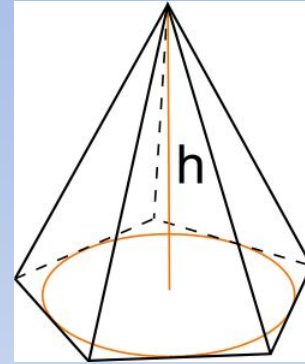
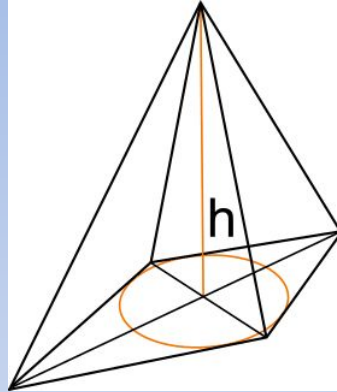
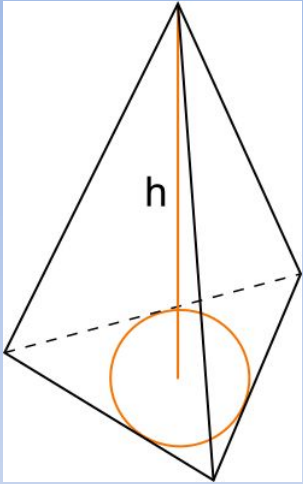
**Lateral surface:** set of faces

**Total surface:** lateral surface + base surface

**Height:** distance of the vertex (V) from the plane of the base.

**VH** is therefore perpendicular to the base.

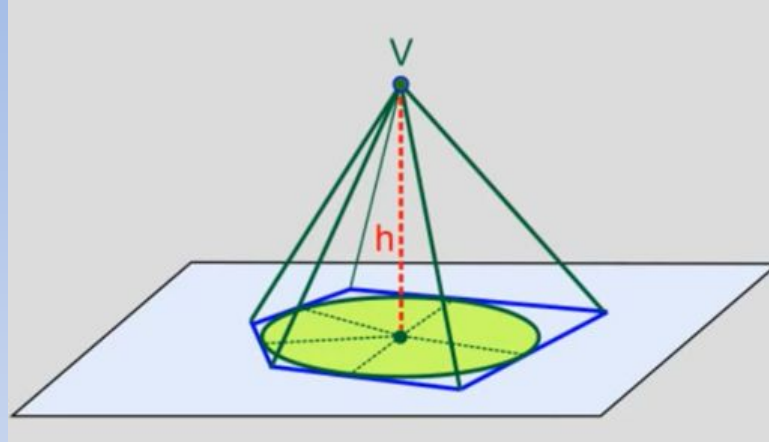
# PYRAMID



If the base polygon is:

- **a triangle**, the pyramid is a triangular one;
- **a quadrilateral**, it is a quadrangular one;
- **a pentagon**, it is a pentagonal one.

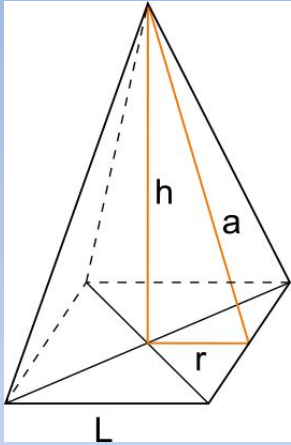
# RIGHT PYRAMID



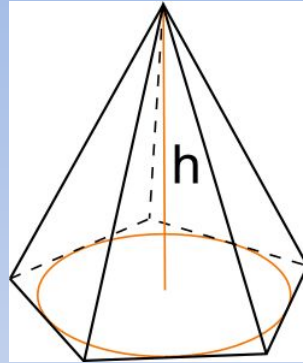
A **pyramid** is **right** if:

- a circle can be inscribed in the base;
- the foot of the height coincides with the center of this circumference.

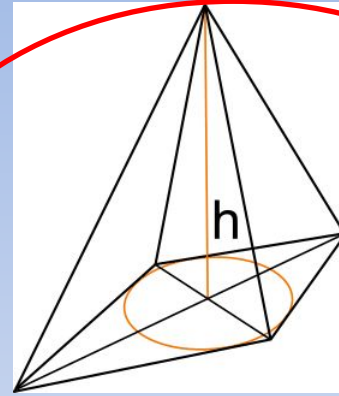
# REGULAR PYRAMID



Quadrangular  
regular pyramid



Pentagonal regular  
pyramid



Right pyramid but  
not regular

**A pyramid is regular if:**

- it is right
- its base is a regular polygon

# When a pyramid is called right?



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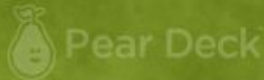


Students, write your response!

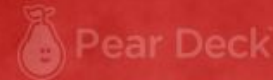
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Do not remove this bar

A pyramid is regular if, and only if, its base is a regular polygon

True



False



Students choose an option

# Drag your dot to how you are feeling:



Keep going, I understand



I'm a little confused



Stop, I need help!



Students, drag the icon!



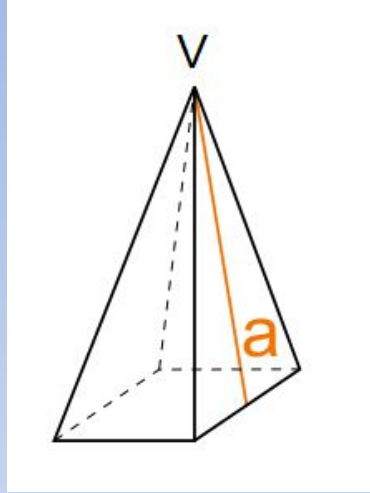
# Stretch Break!

*Let's take 5 minutes to stretch*



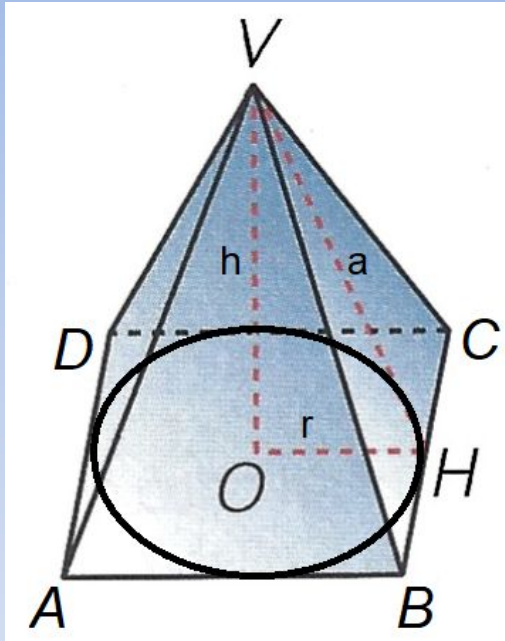
Students, follow the instructions on the slide

# APOTHEM OF A RIGHT PYRAMID



The **apothem** (**a**) of a **right pyramid** is the segment that joins perpendicularly the vertex with the base edges or, more simply, **the height of one of the triangles that make up one of its faces.**

# APOTHEM OF A RIGHT PYRAMID



$$\overline{VH} = a = \sqrt{h^2 + r^2}$$

$$\overline{VO} = h = \sqrt{a^2 - r^2}$$

$$\overline{OH} = r = \sqrt{a^2 - h^2}$$

$$r = \frac{\overline{AB}}{2}$$



## Problem

The pyramid of Cheops has the side of the base square of 230 m and the height of 146 m. How much does the apothem measure?



10 minutes



# How well did you like the problem?



Students, drag the icon!



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Do not remove this bar

Circle how you are feeling:



 Pear Deck



Students, draw anywhere on this slide!

Pear Deck Interactive Slide  
Do not remove this bar