

Pull

SOLIDS

What does this mean?

Pull

Pull

sol·id

/ˈsɒlɪd/ Show Spelled[sol-id] Show IPA

–adjective, sol·id·er, sol·id·est.

1. having three dimensions (length, breadth, and thickness), as a geometrical body or figure.
2. of or pertaining to bodies or figures of three dimensions.
3. having the interior completely filled up, free from cavities, or not hollow: a solid piece of chocolate.

Define Solid :

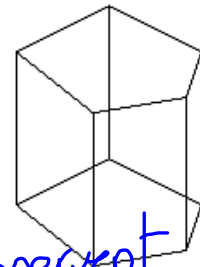
Lesson 44 ~ Solids

Right Prism, Right Pyramid & Right Cylinders

Audio

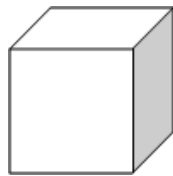
Right Prisms

- A right prism is a solid formed by.....
 - 2 bases
 - Rectangular faces
- Properties of Right Prisms
 - bases are parallel (\parallel) + congruent
 - lateral faces = \parallel
- The length of a lateral edge is called the height of the right prism.

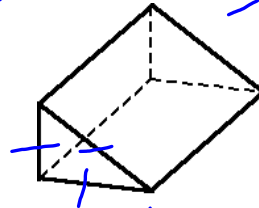


Examples

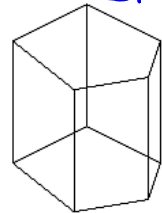
Rgt. Regular Prism



Square

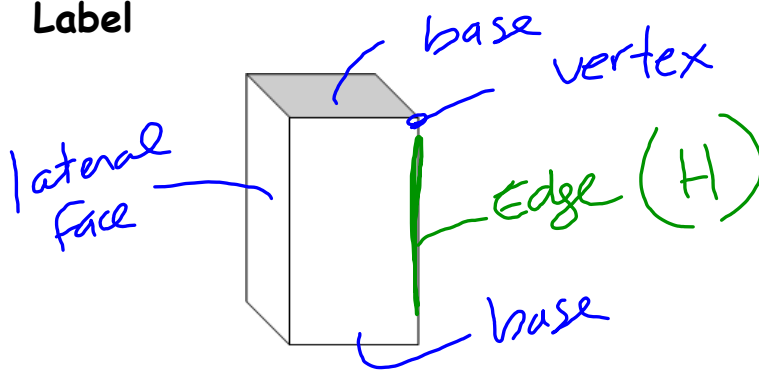


Triangular



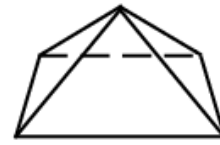
Pentagonal

Label



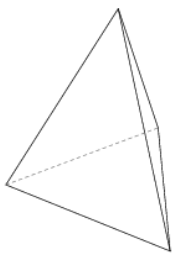
Right Regular Pyramids

- A pyramid is a solid formed by....
 - Polygon Base
 - \triangle_s Lateral faces
- The height of each of the lateral faces originating at the apex is called the slant height
- A pyramid is right and regular when its base is a Regular Polygon and the foot of the height is the center of the base.

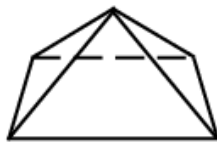


The lateral faces are congruent Isosceles Triangles

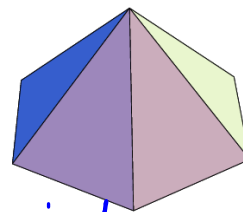
Examples



Triangle

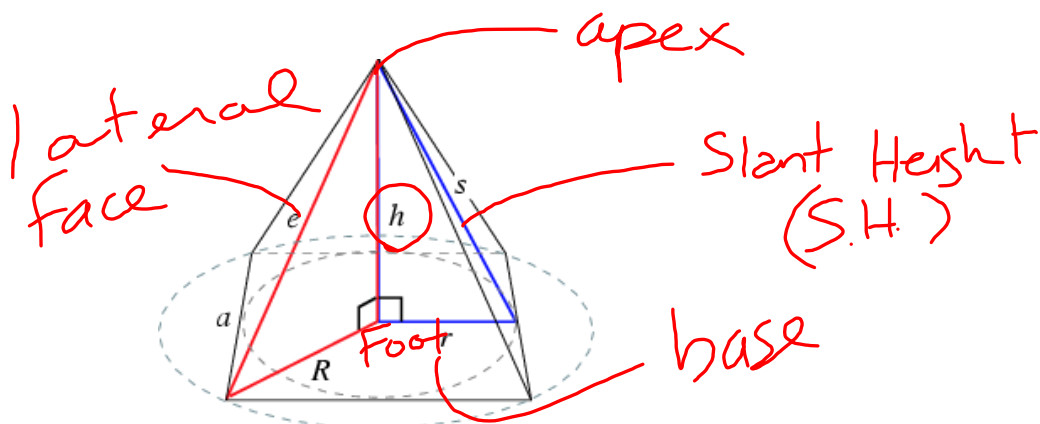


Rgt. Reg. Pyramid
square




hexagonal

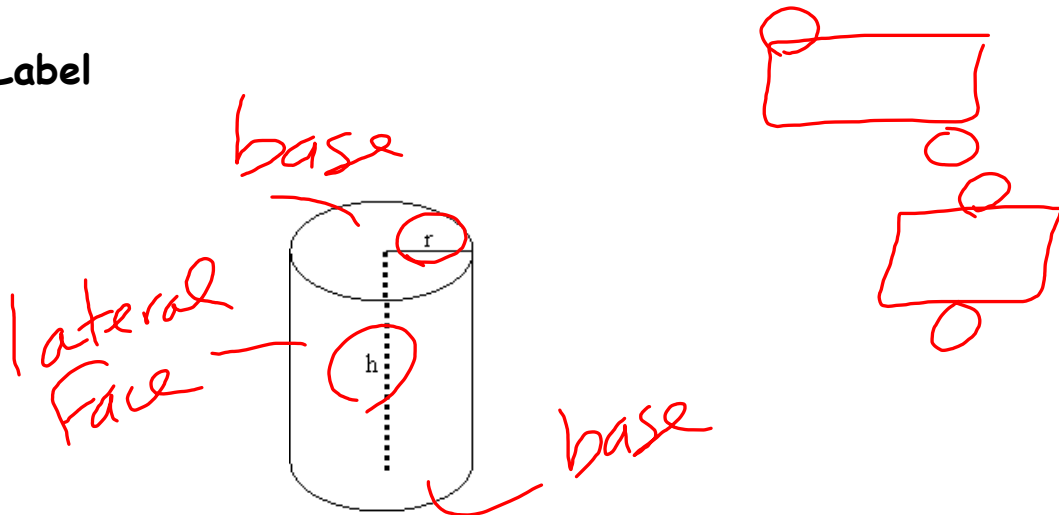
Label



Right Circular Cylinders

- A right circular cylinder is formed by.....
 - 2 || discs
 - 1 Lateral face 
- The Base's Radius is called the cylinder's Radius.
- The segment joining the centers of the bases is the height of cylinder

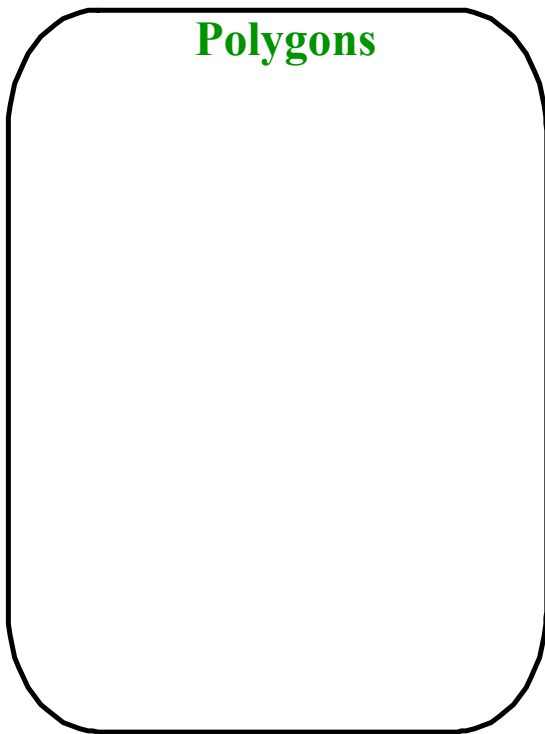
Label



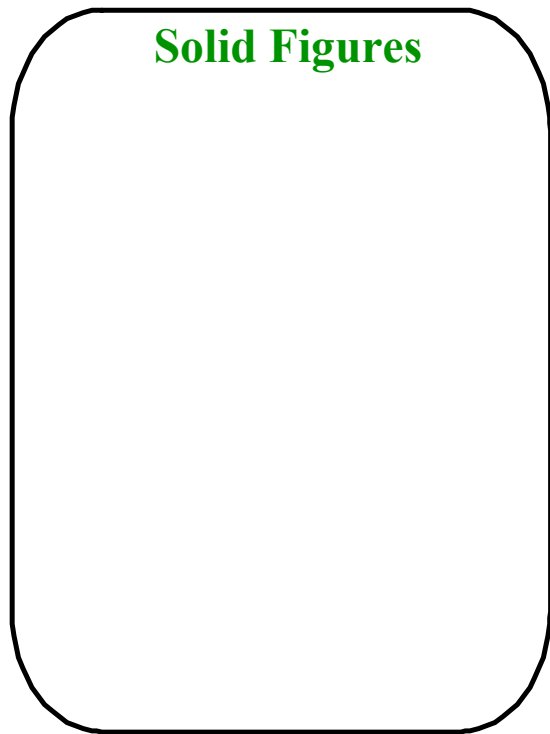
**Look around the classroom.
Can you find examples of polygons and solid figures?**

List the item and what figure it is in the charts below:

Polygons



Solid Figures



Kuta Software - Infinite Geometry

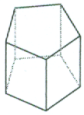
Name _____

Identifying Solid Figures

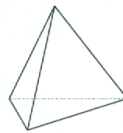
Date _____ Period _____

Name each figure.

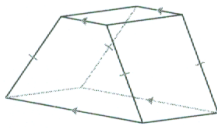
1)



2)



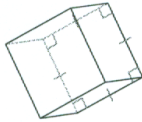
3)



4)



5)



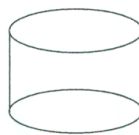
6)



7)



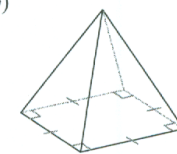
8)



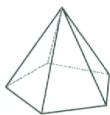
9)



10)



11)



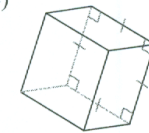
12)



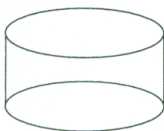
13)



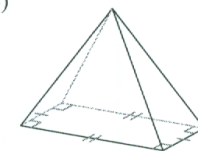
14)



15)



16)

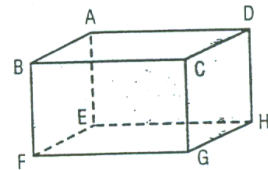


Name : _____

Lesson 44 ~ Practice

1. Consider the prism on the right.

- a) Name all edges parallel to the edge AB. _____
- b) Name the face parallel to the face ABFE. _____
- c) Name the faces perpendicular to the base EFGH. _____

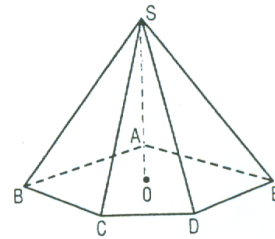


2. The pyramid on the right with apex S is lying on its base, the polygon ABCDE.

The segment SO, perpendicular to the base, is the height of the pyramid. The point O is at the foot of the height.

It is a right regular pyramid, because its base is a regular polygon, and the foot of the height O is the centre of the base.

- a) What is the common point to each of the lateral faces? _____
- b) What is the shape of each lateral face? _____
- c) Are the lateral faces congruent? _____
- d) Are the lateral edges SA, SB, SC, SD and SE congruent? _____
- e) Are the edges representing the sides of the base ABCDE congruent? _____

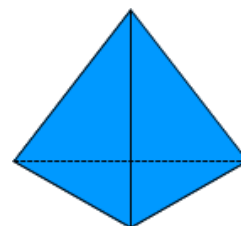
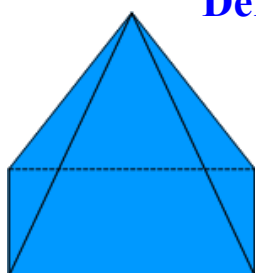


3. The cylinder on the right is lying on its lower base.

- a) 1. What is the shape of each base? _____
- 2. Are the bases congruent? _____
- 3. Are the bases parallel? _____
- b) What is the segment joining the centres of the bases called? _____
- c) Is the lateral surface curved or flat? _____



Define the following attributes for each solid.



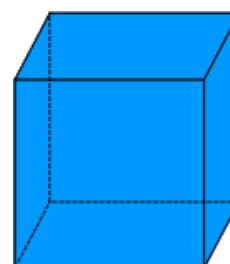
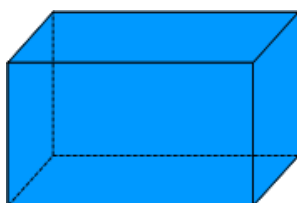
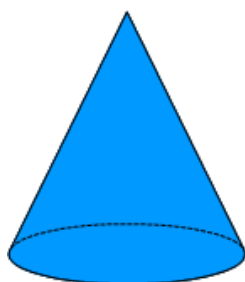
Name

Vertices

Edges

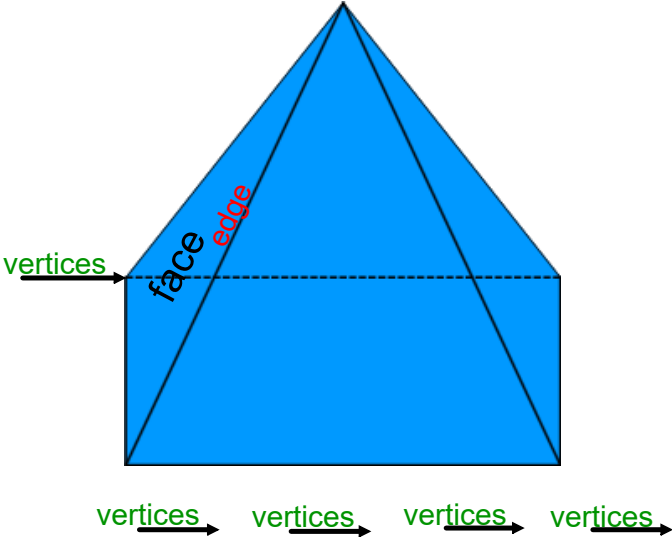
Faces

Bases



Label the Pyramid

face
face
face
face



edge
edge
edge
edge
edge
edge
edge

Solid Figures

Drag the term to the correct solid.

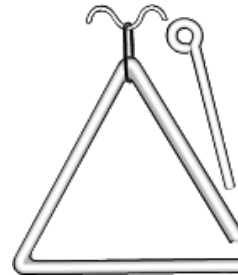
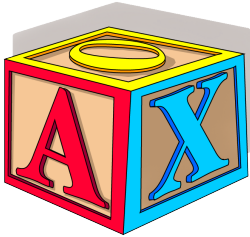
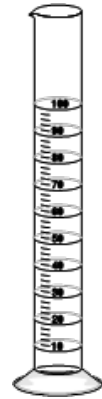


Solid Figures

Drag the term to the correct definition.



Name each figure.



Drag the term to the correct figure.

cube

triangular prism

cone

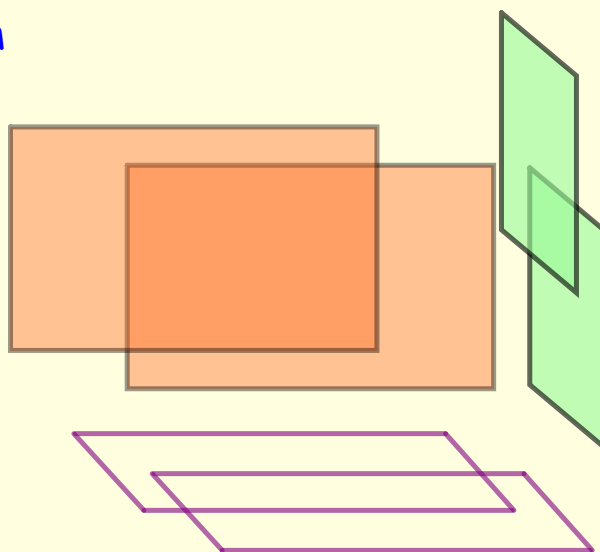
triangle

pentagonal prism

sphere

cylinder

Construct a 3D rectangular prism out of the 2D plan shapes.



A Rectangular Prism has...

How many faces?

How many edges?

How many vertices?



<http://www.youtube.com/watch?v=5QgIJOy7T7Y>



Attachments

audio (solids).notebook