CORNELL NOTES

TOPIC/OBJECTIVE: G16: Solids

CONTENT/CLASS: Geometry

NAME:

CLASS/PERIOD: 6

DATE: 9/18/15

ESSENTIAL QUESTION: What are some ways we can find surface area and volume of prisms and pyramids?

QUESTIONS:

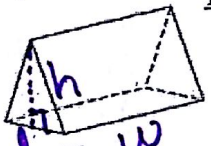
NOTES:

Prism

a solid geometric object whose two end faces are similar, equal, and parallel figures, and whose sides are parallelograms.

Regular Prism
all sides are rectangles

Triangular Prism

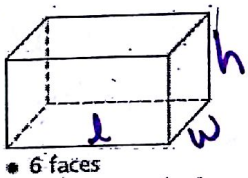


- 5 faces
  - 2 triangular bases
  - 3 rectangular faces

S.A.= Find area of 2 △ bases and 3 rectangle faces then add together

V= $\frac{l \cdot w \cdot h}{2}$ or $V = \frac{1}{2} \cdot l \cdot w \cdot h$

Rectangular Prism



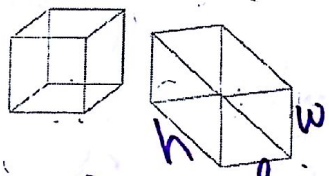
- 6 faces
  - 2 rectangular bases
  - 4 rectangular faces

S.A.= Add up area of all 6 rectangles

V= $l \cdot w \cdot h$

l = length w = width h = height

Square Prism



6 faces
2 square bases
4 rectangular faces

S.A.= find area of 2 square and 4 rectangle faces then add together

V= $l \cdot w \cdot h$

*at least 2 of your dimensions (l, w, h) are equal.

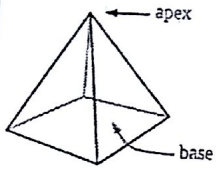
SUMMARY:

DATE:

SSENTIAL QUESTION:

UESTIONS:

NOTES:



Pyramid

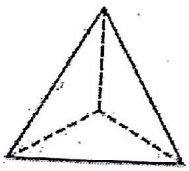
A solid object whose base is a polygon (a straight-sided flat shape) and the sides are triangles which meet at the top (the apex).

$V = \frac{B \cdot h}{3} = \frac{1}{3} B \cdot h$

B = area of base shape

h = height of pyramid

Triangular Pyramid

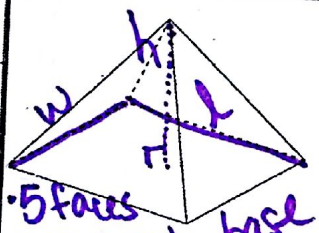


- 4 faces
  - 1 triangular base
  - 3 triangular faces

S.A. = Add up area of all 4 triangles

$V = \frac{1}{3}$ (area of base triangle) $\cdot h$

Rectangular Pyramid



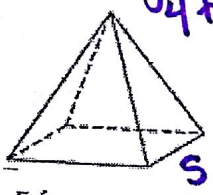
- 5 faces
  - 1 rectangle base
  - 4 triangle faces

S.A. = find area of rectangle base and 4 Δ faces then add together

$V = \frac{l \cdot w \cdot h}{3}$

$V = \frac{1}{3} \cdot l \cdot w \cdot h$

Square Pyramid



- 5 faces
  - 1 square base
  - 4 triangular faces

S.A. = find area of square base and 4 Δ faces then add together

$V = \frac{l \cdot w \cdot h}{3}$

OR

$V = \frac{s^2 \cdot h}{3} = \frac{1}{3} s^2 \cdot h$

s = side length of square base

RY: