12.1 Prisms – Notes

Right prism

Altitude

Bases

Total area

Lateral edges

Lateral area

Oblique prism

Prism

Height

Surface area

Parallelograms

Lateral faces

The first solid we will study is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The two shaded faces shown are its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Notice that the bases are congruent polygons lying in parallel planes.

An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a prism is a segment joining the two base planes and perpendicular to both.

The length of an altitude is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the prism.

The faces of a prism that are not its bases are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Adjacent lateral faces intersect in parallel segments called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The lateral faces of a prism are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If they are rectangles, the prism is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Otherwise the prism is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a solid is measured in square units

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (L.A.) of a prism is the sum of the areas of its lateral faces.

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (T.A.) is the sum of the areas of all faces.

Theorem 12-1: The lateral area of a right prisim equals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

times \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw an example of your own here:

Theorem 12-2: The volume of a right prism equals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

times \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw an example of your own here:

12-2 Pyramids – Notes

Lateral edges

Pyramid

Slant height

Center

Height

Regular (2)

congruent

Vertex

Lateral faces

Base

Pyramid

Isosceles triangles

A pentagonal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (shown at board) has a point V, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the pyramid and pentagon ABCDE is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The segment from the vertex perpendicular to the base is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and its length is the \_\_\_\_\_\_\_\_\_\_\_\_ of the pyramid.

The five triangular faces with V in common, such as triangle VAB, are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

These faces intersect in segments called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pyramids have the following properties:

* The base is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ polygon
* All lateral edges are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* All lateral faces are congruent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The height of a lateral face is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the pyramid.
* The altitude meets the base at its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Theorem 12-3: The lateral area of a regular pyramid equals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

times \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw an example of your own here:

Theorem 12-4: The volume of a pyramid equals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

times \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Draw an example of your own here: