

LESSON 24: Plane Sections of 3-D Figures

Here is the key to **S324**.

Homework

.....

Name _____ **Date** _____

Directions: Complete the following SOLVE problem using what you have learned about plane sections.

~~Mike makes crystal and glass trophies.~~ | One customer asked him to make a trophy that was shaped like a square pyramid | that could be split in half perpendicular to the base. | The customer wanted Mike to etch the name of the winner and the contest on the plane sections made when the pyramid was split. | What shape will the writing be on?

S Underline the question.

This problem is asking me to find **the shapes of the plane sections**.

O Identify the facts.

Eliminate the unnecessary facts.

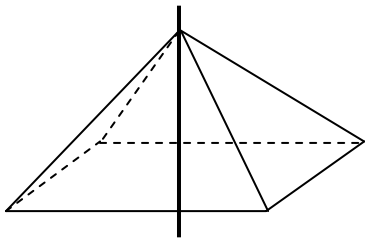
List the necessary facts. **Square pyramid – cut perpendicular to the base through the vertex to cut it in half.**

L Write in words what your plan of action will be. **Draw a square pyramid with a cut perpendicular to the base. Visualize the plane section.**

Choose an operation or operations. **None**

V Estimate your answer. **N/A**

Carry out your plan. **Cut perpendicular to base – the plane section will be the same shape as the lateral sides – a triangle.**



E Does your answer make sense? (Compare your answer to the question.) **Yes, because we found the shape of the plane section where the writing will be.**

Is your answer reasonable? (Compare your answer to the estimate.) **N/A**

Is your answer accurate? (Check your work.) **Yes**

Write your answer in a complete sentence. **The writing will be on faces that are triangles.**