

Compare the two dimensional cross-sections formed by slicing three dimensional right prisms and pyramids by sorting qualities of the cross-sections

Practice Set C

Name:

Date:

1. Decide whether the following statements are true or false, then explain why.

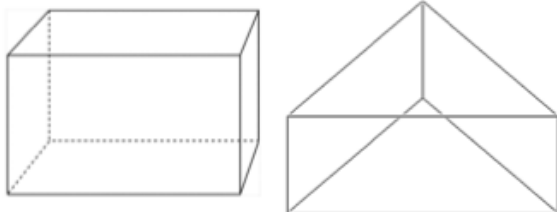
True or False: A triangular cross-section can only be formed when starting a slice at a vertex. Explain.

True or False: Since a rectangular pyramid has five faces, a cross-section with five sides can be created from a slice. Explain.

True or False: A square cross-section can only be formed from a right rectangular pyramid when the based of the pyramid is a square.

2. How would the cross-sections formed from a right triangular prism differ from a right rectangular prism?

How would the cross-sections formed from right triangular be similar to the cross-sections of a right rectangular prism?



Compare the two dimensional cross-sections formed by slicing three dimensional right prisms and pyramids by sorting qualities of the cross-sections

Practice Set C Answer Key

1. Decide whether the following statements are true or false, then explain why.

True or False: A triangular cross-section can only be formed when starting the slice at a vertex. Explain. **A triangular cross-section can also be formed by starting on the edge of the three-dimensional solid.**

True or False: Since a rectangular pyramid has five faces, a cross-section with five sides can be created from a slice. Explain. **The greatest number of sides a cross-section from a right rectangular pyramid can have is four.**

True or False: A square cross-section can only be formed from a right rectangular pyramid when the based of the pyramid is a square. **Unless the base of the pyramid is square, a rectangular cross-section will be formed when sliced horizontally.**

2. How would the cross-sections formed from a right triangular prism differ from a right rectangular prism? **It would be impossible to create a pentagonal shaped cross-section from a triangular prism, because it only has five faces. Triangular cross-sections can also be formed from slicing a triangular prism parallel to the bases.**

How would the cross-sections formed from right triangular be similar to the cross-sections of a right rectangular prism? **Triangular, rectangular, square, trapezoidal cross-sections can be formed from slicing both prisms.**

