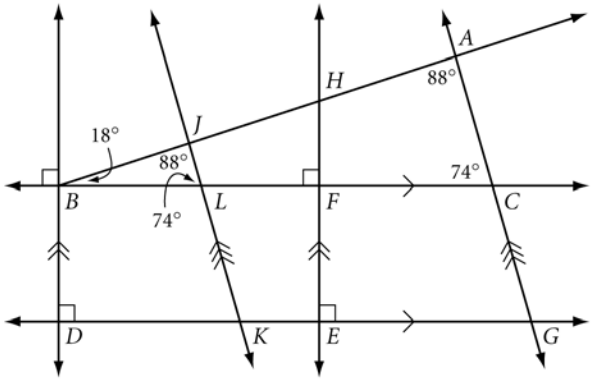
Take Home Questions

Name _____ Period_____

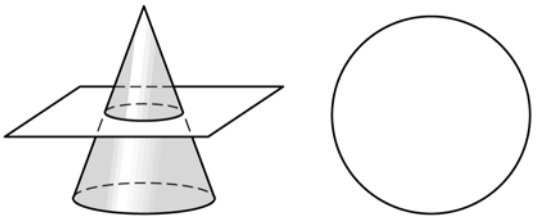
This part of the test must be turned in by Monday, September 29, 2003.

1. *(Lesson 1.3)*
   In Lesson 1.3, you wrote definitions for terms based on sets of examples and non-examples. Make up your own term and write a clear, precise definition for it. Your term can describe a geometric object or a "creature" such as a Widget. Provide at least three examples and three good non-examples for your term. By looking at your examples and non-examples, a person should be able to write an accurate definition for your term. (Hint: A good non-example will share some characteristic(s) with the examples—that is, it will satisfy some part(s) of your definition.)

2. *(Lessons 1.4, 1.5)*
   Identify two different types of triangles and two different types of quadrilaterals in the figure below. Identify each figure by its type and its name (for example, "acute triangle *XYZ*," "parallelogram *PQRS*"). Explain how you know each figure satisfies the definition for its particular type. For example, if you identify a figure as a parallelogram, explain how you *know* it is a parallelogram.



3. *(Lesson 1.8)*
When a cone is cut by a plane that is parallel to its base and that does not pass through its vertex, the plane figure formed by the intersection is a circle.



Think about all the other ways a plane can intersect a cone. Make a sketch of each different shape that can be formed. For each shape, explain in words or with a sketch how the plane must cut the cone to form the shape.