Patterns and properties

name:_____

Yektti properties:

1. An attribute is something that describes something (a property that it has; for example, having brown eyes is an attribute some people have, so you could make a set of all of the people with brown eyes). List the attributes that Yekttis can have. I have started the list for you:

      1. Circle eyes
      2.

2. How many Yekttis have… (*explain your reasoning for each of these*)
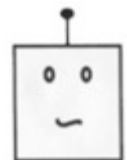
a. 3 antennae?

b. Circle eyes?

d. How many Yekktis have both square heads and circle eyes?

e. Some Yekttis have square heads. Some have triangular heads. How many have either square or triangular heads?

f. If this Yekkti wanted to invite only other Yekktis that had a square head (like him) or 1 antenna (like him) to a party, how many Yekktis would he invite? (explain)

g. If you were playing the Yekktis game, how could you choose 2 attributes so the sets would be disjoint (no overlap)?

3. Here's a cool pattern (it may be easier to find the structure if you look on line at the color picture). See http://www.visualpatterns.org/uploads/3/8/7/2/38721349/3822795_orig.png for color picture

I'm asking the question: **How many cubes in the pattern?**
You might have to make some decisions about what I mean by the question. Explain what you decided the question meant as part of your answer to the problem.
You should be able to find some structure in the pattern that will help you organize your work to answer the problem. Spend some time thinking about how to use the structure before you jump in—some ways to answer it are easier than others. Show and explain the process you used to find the answer.