## Shape Sorter Game Exploration Questions

When you have finished playing the game, answer the following questions:

1. How many objects satisfy the rule BIG? How many satisfy the rule RED? How many satisfy the rule TRIANGLE?
2. If you don't think the other player will make any mistakes and if you want to keep the other player's score small, should you set the rule to RED or BIG?
3. How many objects are in the intersection of BLUE and TRIANGLE? What are they?
4. What is the intersection of BLUE and RED?
5. How could you get the biggest intersection?
6. If the version of the game is the one with two separate circles and the first rule is RED, can the rule for the second circle be BIG? Check your answer by setting the first rule to RED and seeing what choices the computer allows for the second rule.
7. If you are playing the version of the game with two intersecting circles and the rule for the first circle is BIG, will the computer allow you to use SMALL as the rule for the second circle? Again, check your answer using the computer. What choices does the computer let you use? Why?
8. Suppose we want to change the game and add a column containing GREEN objects. How many correct answers would there be in the new game when the rule is BIG?
9. Draw all the objects in a new game with 2 colors, 2 sizes, and 3 shapes. You can choose the shapes. How many objects are there?
10. Now suppose the game has 4 colors, 3 sizes and 6 shapes. How many objects are there?
