Write the name of each group member below

Name _____

Name _____

Name _____

Name _____

Number Systems

Your Tasks (Mark these off as you go)

- ☐ Assign group roles
- ☐ Brainstorm: How many ways can we represent 7
- ☐ Investigate 3 place patterns
- ☐ Organize your patterns in a predictable sequence
- ☐ Explain your number system
- ☐ Test your number system
- ☐ Receive credit for the group portion of this lab

▢ Assign group roles

Before you get started. record your group number, then collaborate with your group and assign each person in your group a role. A description of each role is provided below.

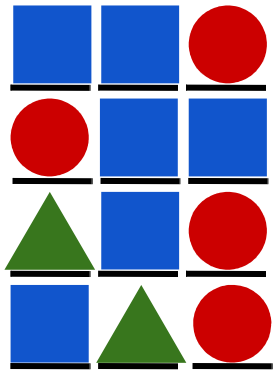
Project manager (PM)	Leads the team discussion and keeps the team on task and on schedule. Make sure the final lab is submitted.
Recorder (R)	Records answers for the team, or ensures that all members have correct answers.
Communication Specialist (CS)	Presents answers (or questions) to the class, instructor, or other teams.
Strategic Analyst (SA)	Considers how the team is working and ensures all voices are heard

Group Number:	
Name	**Role**

□ Brainstorm: How many ways can we represent 7

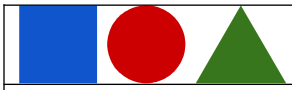
Think about the different ways you can represent the number 7. Write your ideas below

□ Investigate 3 place patterns



Given 3 places to work with, make as many *unique* patterns as you can using only circles, triangles and squares. Arrange your patterns on the space below by copying (ctrl-c and pasting ctrl-v) the pictures of the shapes provided.

The diagram on the right shows a few examples of some 3-place patterns. *NOTE: Order matters, so, for example: Circle-Triangle-Square is a different pattern than Square-Circle-Triangle, even though both have one of each shape.*

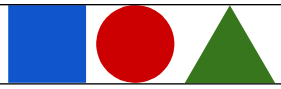
		

How many 3 place patterns did you find?

□ Organize your patterns in a predictable sequence

Once you have found as many patterns as possible, figure out a way to order your patterns so that the sequence is predictable. In other words, how might you use circle, squares, and triangles to count.

Record your sequenced 3-place patterns through the first 10 places

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

□ Explain your number system

In the space below explain your number system and how it works. How did you develop a predictable sequence? Your explaination should be thorough and be written in a narrative format using complete sentences, correct spelling, and proper grammar.

□ Test your number system

- Indicate how your number system could be used to represent the following quantities.

30	
41	
100	
200	
1028	

□ Receive Credit for the group portion of this lab

- Indicate the names of all group members.
- Have Ms. Pluska check your Number Systems lab.
- Submit your lab to the needs to be graded folder to receive credit for the group portion of this lab.

Do not submit your lab until you have Ms. Pluska's (or her designated TA's) signature _____