

Choices: Choose and complete any 2 of the following 4 items.

6. Thoroughly read pages 13-21 in your textbook. Write one or two paragraphs describing (1) the main points in the reading, (2) what you learned from reading these pages, and (3) any questions you have.
7. Read the handout posted on Blackboard called “Place Value on the Horizon.” Write one or two paragraphs giving your thoughts on what the reading says about the development of numeration systems and place value. In particular, describe how you think this history relates to students’ progression from learning to count to learning about place value.
8. Explain the meanings of the phrases *additive numeration system* and *positional numeration system*. Then, imagine a goofy numeration system where $\acute{o} = 0$, $\acute{c} = 1$, $\hat{G} = 2$, $\hat{h} = 3$, $\Theta = 4$, and $\acute{a} = 5$. Using these symbols, complete the following:
 - a) How might you write 57 in the goofy numeration system if the system is *additive*?
 - b) How might you write 57 in the goofy numeration system if the system is *positional*?
 - c) Determine whether the following number represents an additive or positional numeration system. Explain your choice.

$$\acute{c} \hat{h} \hat{h} \acute{o} \Theta = 2056$$

9. How does our numeration system compare to other numeration systems? In your response, be sure to address additive and positional numeration systems, the value of the base, the type and number of written symbols, and the role of zero.