

Here is a new number system. It is similar to the Mayan number system and uses only three symbols: dot, line, and oval. The numbers are written vertically. This system is a base twenty system. Here are a few numbers:

•	••	•••	••••		•	••	•••	••••	
1	2	3	4	5	6	7	8	9	10
•	••	•••	••••		•	••	•••	••••	○
11	12	13	14	15	16	17	18	19	20
•	•	•	•	•					•
•	••	•••	••••						
21	22	23	24	25					30
•	••	••		••					
	○					○	○	○	
35	40	45		50		100	200	300	

- a) Give the following five base 10 numbers in the new system.

29

55

84

93

146

- b) Translate the following **two** numbers into base 10:

•••
|

|•
||••

- c) Do the following **two** additions “directly” (**without** going through base 10). Give answers in “simplest” form.

•
||• + |•• =

•• ||•
•• + ••• =

- d) Do the following **two** subtractions “directly” (**without** going through base 10).

|||•• |•
||•• - || =

||• - ••• =

- e) What is the highest number that uses **two** places that would be written without moving to a new (third) position? Write this number in this system as well as translated into base 10.