Checkpoint – Calling Trees

The tables that follow show variables changing in a pattern of exponential growth.

i.

x	0	1	2	3	4	5	6
y	1	2	4	8	16	32	64

ii.

x	0	1	2	3	4	5	6
y	3	6	12	24	48	96	192

a. What equation relating *NOW* and *NEXT* shows the common pattern of growth in the tables?

b. How are the patterns of change in the tables different? How will that difference show up in the plots of the tables?

c. What equations (y = …) will give rules for the patterns in the tables?

d. How do the numbers used in writing those rules relate to the pattern of entries in the table? How could someone who knows about exponential growth examine the equation and predict the pattern in a table of *(x, y)* data?