9.2 Writing Exponential Functions from a Table

Review:

Exponential functions are of the form: $y = a \cdot (1 + r)^x$
When the value in the parentheses $(1 + r)$ is greater than 1, the exponential function is

_____.
When the value in the parentheses $(1 + r)$ is between 0 and 1, the exponential function is

_____.

Finding the Growth or Decay Rate from a Table

1)

Minutes	Height of Airplane
0	500
1	875
2	1531
3	2679
4	4689

$875 \div 500 =$ _____ and
$1531 \div 375 =$ _____, so
$b = (1 + r) =$ _____

Rate: _____

2) The table below shows the number of people on the slopes x hours after 6:00 p.m. What percentage of the people remained from one hour to the next?

Hours, x	0	1	2	3	4
People, $f(x)$	810	270	90	30	10

Writing an Exponential Function from a Table

3)

Number of Sections

Number of Folds	Number of Sections
0	
1	
2	
3	
4	
5	
6	

4)

Period	Amplitude
0	171
1	142
2	118
3	98
4	81.5
5	68

Growth or Decay

Rate: _____

Initial Value: _____

Function: _____

Growth or Decay

Rate: _____

Initial Value: _____

Function: _____