EXPONENTIAL FUNCTIONS (1.2)   NAME_____

1. Determine which table illustrates an exponential function and which one illustrates a linear function. Find formulas for these two functions, then find a formula for the third function.

x	$f(x)$
-2	-25.22
0	3.50
2	32.22
4	60.94
6	89.66

x	$g(x)$
0.5	-1
1	0
2	1
4	2
8	3

x	$h(x)$
-3	1.3310
-1	1.9167
1	2.7600
3	3.9744
5	5.7231

2. Determine which situation is linear and which is exponential. Find a formula for each.

A. A computer purchased for $3200 loses roughly 20% of its value each year.

B. A kitchen appliance purchased for $120 loses roughly $18 in value every two years.

3. Find a formula for each graph.

(0, 1.5)

(2, 0.4374)

(2, 18.75)

(-2, 0.48)
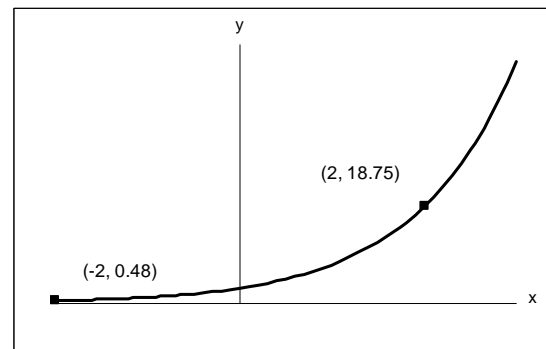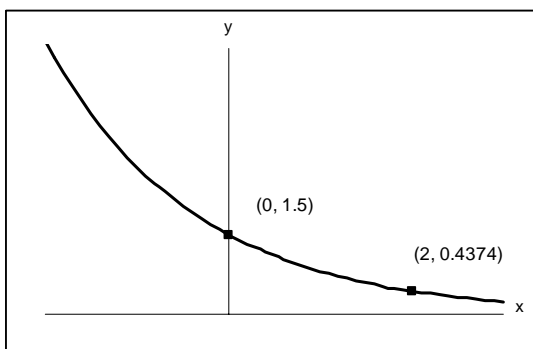
4. It is predicted that the population of a particular state will double by the year 2026. Determine the annual, monthly, and continuous growth rates.

5. The number of people who hear a rumor tends to follow a saturated growth model. Suppose a particular town has 2000 people. Three days after a rumor is introduced, 140 people will have heard it. Determine when 40% of the population will have heard the rumor.