

# EXPONENTIAL FUNCTIONS

NAME \_\_\_\_\_

1. Linear and exponential functions have very unique properties. Write a paragraph explaining these properties. Include how you can determine if data follows a linear pattern or an exponential pattern.
2. Determine which table illustrates an exponential function and which one illustrates a linear function. Find formulas for these two functions.

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

3. Determine which situation is linear and which is exponential. Find a formula for each.  
A computer purchased for \$3200 loses roughly 20% of its value each year.  
A kitchen appliance purchased for \$120 loses roughly \$18 in value every two years.
4. Find a formula for each graph.

A. Contains the points (0,1.5) and (2,0.4374)

