

Exponential Functions (10/22/2008)

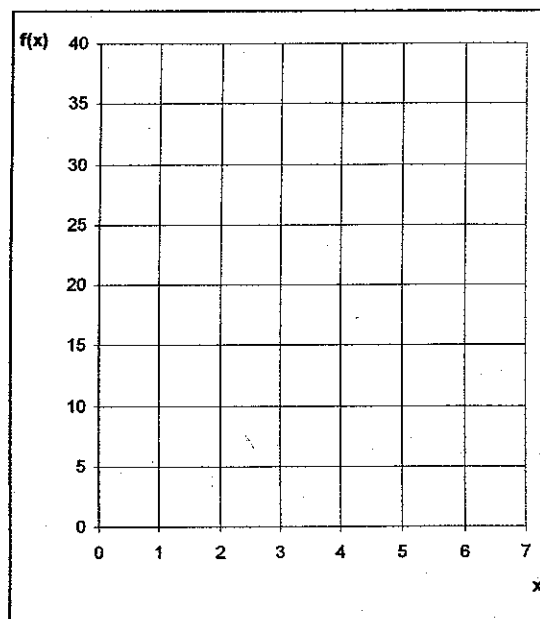
Example 1: Consider the function defined by $y = f(x) = 3(1.5)^x$ for $x \geq 0$.

Note that the function can also be expressed by the rule $f(x) = 3(1 + 0.5)^x$.

In this example the growth rate is _____, and the growth factor is _____.

Complete the table below and sketch the graph.

x	$f(x) = 3(1.5)^x$	$\frac{f(x)}{f(x-1)}$
0		
1		
2		
3		
4		
5		
6		



Example 2: Consider the function defined by $y = f(x) = 40(0.6)^x$ for $x \geq 0$.

Note that the function can also be expressed by the rule $f(x) = 40(1 - 0.4)^x$.

In this example the growth rate is _____, and the growth factor is _____.

Complete the table below and sketch the graph.

x	$f(x) = 40(0.6)^x$	$\frac{f(x)}{f(x-1)}$
0		
1		
2		
3		
4		
5		
6		
7		

