

Here is an alternate explanation with more details.

a)

$x$	$f(x)$
0	7
1	13
2	25
3	49
4	97

Red annotations show the first differences:  
6 (between 7 and 13)  
12 (between 13 and 25)  
24 (between 25 and 49)  
48 (between 49 and 97)  
These differences are multiplied by 2 to get the next term.

The first differences form a geometric sequence where the general term is  $g_n = 6(2)^n$  where  $g_0 = 6$ . If the output values of a function change proportionally, then the function is exponential.

**2.3.A.4** If the values of the additive transformation function  $f(x) + k$  of any function  $f$  are proportional over equal-length input-value intervals, then  $f$  is exponential.

$$f(x) = 6(2)^x + 1$$