Exponential Growth

Function Notation

x	0	1	2	3	4	5	6
y	1	2	4	8	16	32	64

Use the table above to find:

a.) f(4) = 16 $x=4$ $y=$

b.) f(0)= 1 $x=0$ $y=$

c.) f(2)= 4 $x=2$

d.) f(5)= 32

Use the function rule to find the following: $f(x) = 2^x$ $f(x)=2^x$

a. f(1) = $2^1=2$ $x=1$

b.) f(2) = $2^2=4$ $x=2$

c.) f(3) = $2^3=8$ $x=3$

d.) f(4)= $2^4=2\cdot2\cdot2\cdot2$ $=16$

Use the function rule to find the following: $f(x) = 2(3)^x$ $=2(3)^x$

a. f(1) = $2(3)^1$ $=6$ $x=1$

b.) f(2) = $2(3)^2$ $2(9)$ 18

c.) f(3) = $2(3)^3$ $=2(27)$ $=54$

d.) f(4)= $2(3)^4$ $=2(81)$ $=162$

Use the function rule to find the following values of x: $f(x) = 3^x$

a. f(x) = 3 b.) f(x) = 81 c.) f(x) = 9 d.) f(x) = 27

Use the function rule to find the following: $f(x) = 3(2)^x$

a. f(x) = 6 b.) f(x) = 48 c.) f(x) = 12 d.) f(x) = 24