

Linear and Exponential Functions

L1

Warm-up

1) How can you tell if a function is linear when given a plot of points?

2) Is this linear?

1	5
2	7
3	9
4	13

A function is **linear** if the change is constant (adding or subtracting by a constant number).

I do:
Fill in the chart

1	
2	
3	5
4	7
5	9

We do:

3	
5	
7	6
9	7
	8

You do:

0	
5	
10	6
15	8
20	10

A Function is **exponential** if it is in the form of $y = a(b)^x$
and $a \neq 0$ and $b > 0$ and $b \neq 1$.

I do:

Is this function exponential? Why or why not? If so what is
the rate of change?

0	3
1	6
2	9
3	12
4	15

We do:

Is this function exponential? Why or why not? If so what is
the equation?

0	48
1	24
2	12
3	6
4	3

We do:

Is this function exponential? Why or why not? If so what is the equation?

0	50
1	40
2	32
3	25.6
4	20.48

You do:

Is this function exponential? Why or why not? If so what is the equation?

0	4
1	6.8
2	11.56
3	19.652
4	33.4084