

Name: _____

Exponential Functions

Exercise 1: Determine if $f(x)$ is an exponential function. If so, find its equation. If not, briefly justify why.

1)

x	3	4	5	6	7
$f(x)$	6.75	20.25	60.75	182.25	546.75

2)

x	1	2	3	4	5
$f(x)$	1	8	27	64	125

3)

x	-2	-1	0	1	2
$f(x)$	-7	0	1	2	9

Exercise 2: Find the asymptote of each function:

1) $f(x) = 5^x + 6$

2) $f(x) = 6^{x+3} + 7$

3) $f(x) = 2^{x-5} - 4$

4) $f(x) = 2^x - 11$

5) $f(x) = 3^x - 4$

6) $f(x) = 3^{x+4} + 12$

7) $f(x) = 2^{x-4} - 6$

8) $f(x) = 5^x + 9$

9) $f(x) = 2^x - 1$

10) $f(x) = 2^x - 5$

11) $f(x) = 3^{x-1} - 7$

12) $f(x) = 3^x - 9$

13) $f(x) = 8^x - 2$

14) $f(x) = 2^x + 5$

15) $f(x) = 3^x + 2$

16) $f(x) = 9^{x-4} - 7$