

Name _____ Date _____

1. $y = \ln(x) \leftarrow \log_e$

Transformations: none

Domain: $(0, \infty)$ Range: $(-\infty, \infty)$

Asymptote: $x=0$ (Inc) or Dec $(0, \infty)$

X-Int: $(1, 0)$ Y-Int: none

End Behavior: $x \rightarrow 0, f(x) \rightarrow -\infty$
 $x \rightarrow \infty, f(x) \rightarrow \infty$

Change
 "tblset"
 $\Delta Tbl = .5$

X	y
.5	-.693
1	0
3	1.099

2. $y = e^x$

Transformations: none

Domain: $(-\infty, \infty)$ Range: $(0, \infty)$

Asymptote: $y=0$ (Inc) or Dec $(-\infty, \infty)$

X-Int: none Y-Int: $(0, 1)$

End Behavior: $x \rightarrow -\infty, f(x) \rightarrow 0$
 $x \rightarrow \infty, f(x) \rightarrow \infty$

X	y
-2	.135
0	1
1	2.718

3. $y = \ln(x+2) - 1$

Transformations: left 2, down 1

Domain: $(-2, \infty)$ Range: $(-\infty, \infty)$

Asymptote: $x=-2$ (Inc) or Dec $(-2, \infty)$

X-Int: $(.72, 0)$ Y-Int: $(0, -.31)$

End Behavior: $x \rightarrow -2, f(x) \rightarrow -\infty$
 $x \rightarrow \infty, f(x) \rightarrow \infty$

4. $y = e^{x-2} + 1$

Transformations: right 2, up 1

Domain: $(-\infty, \infty)$ Range: $(1, \infty)$

Asymptote: $y=1$ (Inc) or Dec $(-\infty, \infty)$

X-Int: none Y-Int: $(0, 1.14)$

End Behavior: $x \rightarrow -\infty, f(x) \rightarrow 1$
 $x \rightarrow \infty, f(x) \rightarrow \infty$

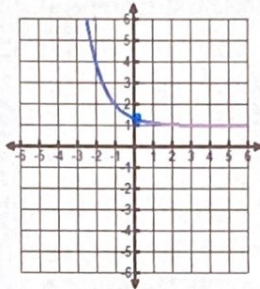
$(0, 2.5)$ $(0, 1.5)$

5. A) Does the table or graph have a larger y-intercept?

Table

B) Determine which is a growth problem and which is a decay problem.

X	F(x)
-2	2.125
-1	2.25
0	2.5
1	3
2	4
3	6



Growth

Decay

6. Which table is a **log** function and which table is an **exponential** function?

X	F(x)
-0.5	-0.5
0	0
1	.5
3	1
7	1.5
15	2

X	F(x)
-0.5	2
0	4
1	16
2	64
3	256

Log

Exp.

7.

A) Is this an Exponential Function or a Logarithmic Function?

Exp.

B) What type of asymptote (vertical or horizontal) does this table have?

horizontal $y =$

C) What is the equation of the asymptote?

X	F(x)
-1	.111
-0.5	.193
0	.333
1	1
2	3
3	9
4	27

$$y = 0$$

8.

A) Is this an Exponential Function or a Logarithmic Function?

Log

B) What type of asymptote (vertical or horizontal) does this table have?

vertical $x =$

C) What is the equation of the asymptote?

X	F(x)
-0.5	-0.631
0	0
2	1
8	2

$$x = -1$$