Name_____ Due Date _____ Period _____

Unit 9 Review: Exponential Functions

For each of the following state whether it is exponential growth or decay, identify the growth/decay rate, and the initial value:

1) $f(x) = 0.25^x$

Growth/Decay

Rate: _____

Initial Value: _____

2) $f(x) = 2 * \left(\frac{4}{3}\right)^x$

Growth/Decay

Rate: _____

Initial Value: _____

3) $f(x) = 6(.07)^x$

Growth/Decay

Rate: _____

Initial Value: _____

For each of the following write an exponential function:

4) Tripling, initial 56

5) Halving, initial 948

6) 5% growth, initial 64

7) 12.5% decay initial 100

8) Lizzy and Jordan are looking at the trends of the movie tickets now average $9.75 a ticket but are increasing 15% per year. How much will they cost 5 years from now? 10 Years from now?

9) Daisy bought a powerful computer for $2,000, but on average it loses 20% of its value every year. How much will it be worth 4 years from now? 6 years from now?

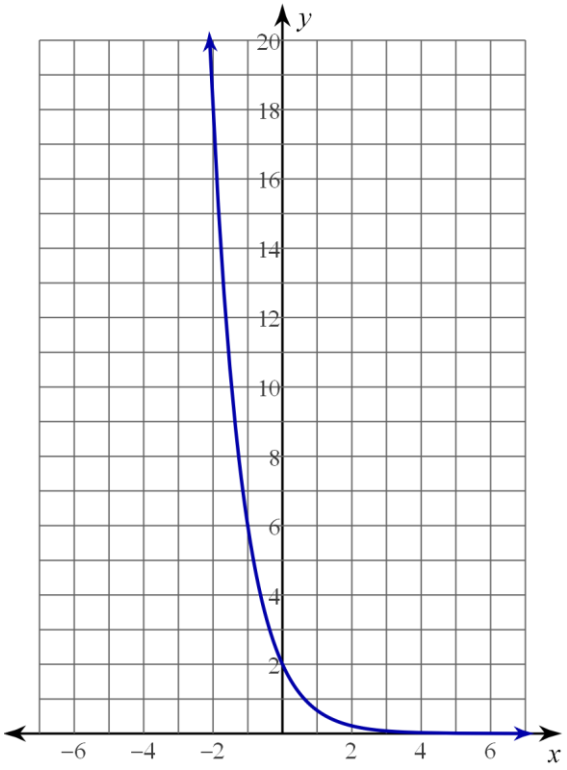
10) Function: _____

Year	1	2	3	4	5	6
value	12	36	108	324	972	2916

11)Function: _____

x	0	1	2	3	4
y	100	25	6.25	1.5625	.390625

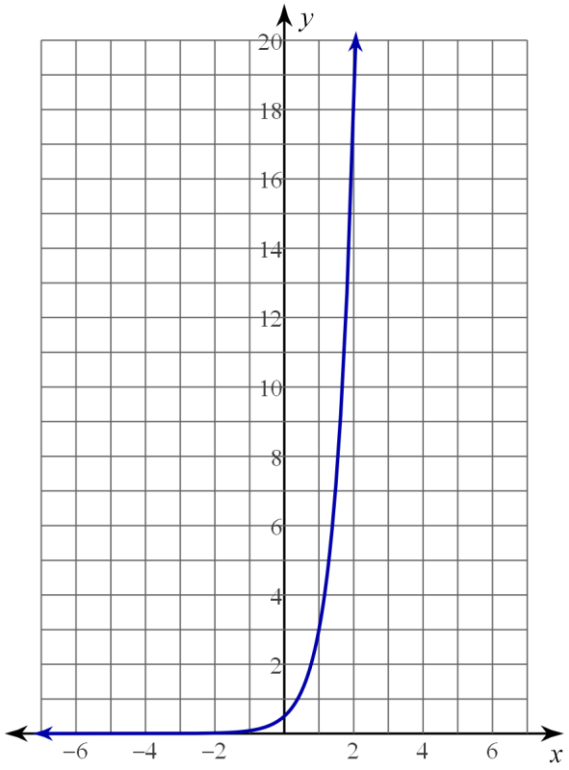
12)Function: _____



x	$f(x)$

*you will not need to use all the spaces in the table

13)Function: _____



x	$f(x)$

*you will not need to use all the spaces in the table