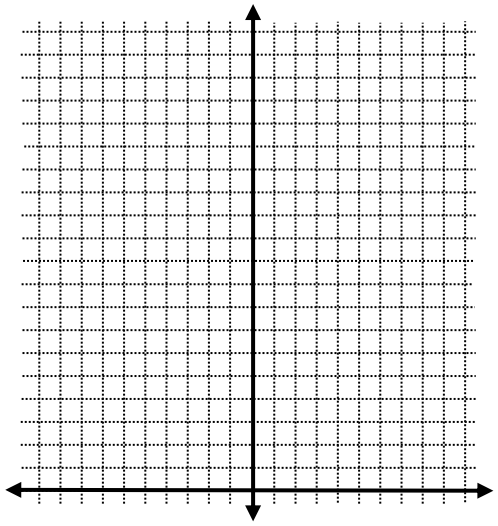
Name: Date: Period:

Complete the tables and graph questions 1 – 4. Don't forget to label your graph appropriately. Make sure to list out your variables and show your work for questions 5 – 10.

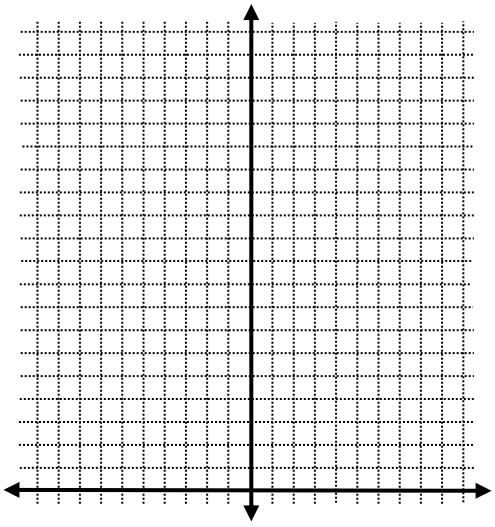
1. $f(x) = 4^x$

x	y
-3	
-2	
-1	
0	
1	
2	
3	



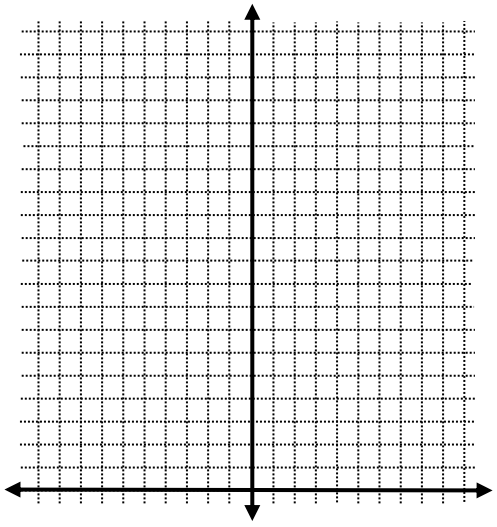
2. $f(x) = 0.5^x$

x	y
-3	
-2	
-1	
0	
1	
2	
3	



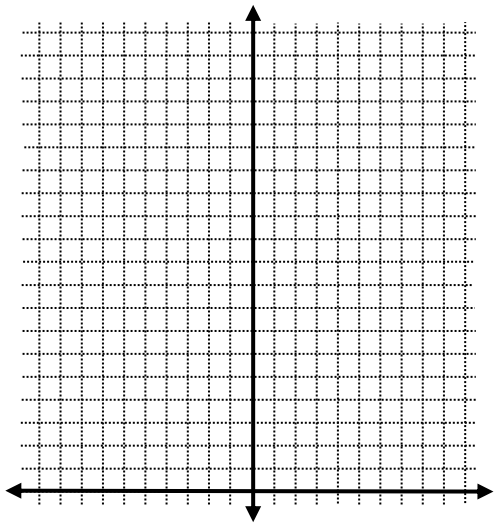
3. $f(x) = 2(2^x)$

x	y
-3	
-2	
-1	
0	
1	
2	
3	



4. $f(x) = 2(\frac{1}{4})^x$

x	y
-3	
-2	
-1	
0	
1	
2	
3	



For the next three problems, be mindful of your substitution and how you enter the information into the calculator. In addition, pay attention to how often the interest is compounded (ie. Compounded quarterly means 4 times a year).

5. If you invest $25,000 in an account that gets 12% annual interest compounded quarterly, how much would you have in 10 years.
   Use the formula $y = p(1 + \frac{r}{n})^{nt}$, where p is the initial amount, r is the rate, n is the number of times compounded annually, and t is the number of years

y = p = r = n = t =	Formula: $y = p(1 + \frac{r}{n})^{nt}$ Substitute:	Calculate:

6. If you invested a penny on Jan 1, 1776 at 10% interest compounded daily, how much would you have on Jan 1, 2011?
   Use the formula $y = p(1 + \frac{r}{n})^{nt}$, where p is the initial amount, r is the rate, n is the number of times compounded annually, and t is the number of years

y = p = r = n = t =	Formula: $y = p(1 + \frac{r}{n})^{nt}$ Substitute:	Calculate:

7. How much would you need to invest to get $20,000 in 5 years at an annual interest rate of 8.5% compounded monthly?
   Use the formula $y = p(1 + \frac{r}{n})^{nt}$, where p is the initial amount, r is the rate, n is the number of times compounded annually, and t is the number of years

y = p = r = n = t =	Formula: $y = p(1 + \frac{r}{n})^{nt}$ Substitute:	Calculate: