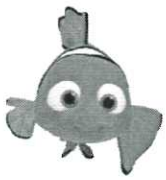
Algebra 1 Name: _____

Question	Exponential Growth or Decay?	Write a function that represents this situation	Answer:
1. You buy a house for $130,000. It appreciates 6% per year. How much is it worth in 10 years?		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	
2. Mr. MD is losing 20% of his hair each year ☺ If he currently has 1,546 hairs on his head, about how many hairs will he have left after 10 years?		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	
3. If you invest $40 in an account for 10 years at a 3% interest rate how much money will you have?		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	
4. A population of 100 frogs increases at an annual rate of 22%. How many frogs will there be in 5 years?		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	

Algebra 1 Name: _____

5. A species of extremely rare, deep water fish are slowly becoming extinct. If there are a total 821 of this type of fish and there are 15% fewer fish each month, how many will there be in half a year? 		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	
6. The population of Austin is growing at a rate of 5% per year. In 2010, the population was 500,000. What would be the predicted current population?		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	
8. A mouse population is 25,000 and is decreasing in size at a rate of 20% per year. What is the mouse population after 3 years?		**Initial Amount =** **Growth/Decay Rate:** Percent = Decimal = Function that represents this situation:	