0/0-	<u> </u>	decimal
	21	5100

Exponential Functions Homework

		5.24
Name	Reg	-
Date	0	Period

Formula for Growth:

$$A = P(1+r)^{\dagger}$$

A = Final amount

Formula for Decay:

$$A = P(1-r)^{\dagger}$$

$$b - factor$$

P = Initial amount r = rate % -> convert t = time in variable

t = time in years

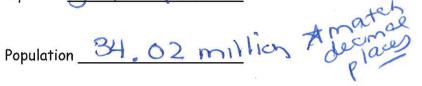
Sallie Mae just found out that in 1800 one of her ancestors invested \$300 in a savings 1. account that paid 4% interest annually. Find the account balance after the year 1950.

Equation
$$y = 300 (1 + 0.04)$$
 (50)

r= 49, 40,04

2. For California, the population in 1900 was 1.77 million. Since then, the population has grown at a rate of 3% per year. According to this rate, what was the population in 2000?

Equation
$$y = 1.77 (1+0.03)^{100}$$



3. Suppose the acreage of forest is decreasing by 4% every year because of development. If there are currently 6,000,000 acres of forest, determine the amount of forest left after 15 years.

r= 490,000

Equation
$$y=600,000(1-0.01)$$
 Sources

Forest acreage 3257518

A \$55,000 purchase depreciates at 16% each year. What would the value be after 10 years?

r= 16% > 0.16