Bellwork Al	lg 2 T	uesday,	January	22,	2019
-------------	--------	---------	---------	-----	------

1. The value of a house has been decreasing 3.7% each year. In 2005 the value was \$310,000. Find the value of the house in 2018 to the penny.

2. There is a US Census taken every 10 years. The population of a city in 2010 was 1,325,000. The population has been increasing 2.4% each census. Find the population in each of the following years to the nearest whole number.

a) 2018

b) 1997

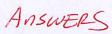
3. The number of cells of a certain organism doubles every 40 minutes. At 8:30 am on a given day there were 80,000 cells. Find the number of cells at the given time rounded to the nearest whole number.

a) 3:20pm the same day

b) 10:15 pm the previous night

4. The half-life of a radioactive material is 3 days. If there is 1,500,000 grams of this material on June 19 find the number of grams of this material remaining on July 8. Round to the nearest hundredth.

## Bellwork Alg 2 Tuesday, January 22, 2019



1. The value of a house has been decreasing 3.7% each year. In 2005 the value was \$310,000. Find the value of the house in 2018 to the penny.

y = 310000 (0.963) x = # yrs since 2005 = 2018-2005 = 13

2. There is a US Census taken every 10 years. The population of a city in 2010 was 1,325,000. The population has been increasing 2.4% each census. Find the population in each of the following years to the nearest whole number.

b) 1997

$$X = 1997 - 2010$$

$$X = -1.3$$

- The number of cells of a certain organism doubles every 40 minutes. At 8:30 am on a given day there were 80,000 cells. Find the number of cells at the given time rounded to the nearest whole number.
- a) 3:20pm the same day

410min = 10.25

y= 80,000(2)10.25 = 97,419,847 cells

b) 10:15 pm the previous night

4. The half-life of a radioactive material is 3 days. If there is 1,500,000 grams of this material on June 19 find the number of grams of this material remaining on July 8. Round to the nearest hundredth.

118602.369