

Warm Up: Pre-Calc

9/23

A geometric sequence starts at 4 and has a common ratio of 3. Write out the four terms using the first term and the power of the ratio.



Feb 27-7:39 AM

W.A.L.T.:

Write exponential functions.

W.A.S.I.:

We can use the first term and the common ratio to write an equation.

Mar 7-9:45 AM

Suppose your neighbor, Margaret Anderson, has just won the state lottery, and her first payment will be \$50,000. Margaret is interested in options that involve spending part of her winnings and saving the balance so that she can accumulate a nest egg at the end of the 20-year period. The tasks that follow will help you analyze Margaret's situation.

- 1. Model with mathematics.** If Margaret saves only her first lottery payment of \$50,000 and deposits it in a savings account paying 5% interest, compounded annually, determine how much money she will have in her account at the end of the each year given in the table below.

pg 47 #1 + 2

Sep 23-10:55 AM

In Class Work: pg. 47 #1 and 2

Year	Years Since 2004	Account Balance
2004	0	\$50,000
2005	1	\$52,500
2006	2	\$55,125
2007		
2008		
2009		
2014		\$ 81, —

1.05

Mar 7-1:33 PM

**Notes!!!** Exponential functions

An exponential function looks like this.

$$f(x) = a \cdot b^x$$

What did we just work on that look almost exactly like that?

Mar 7-1:33 PM

**Notes!!!** Exponential functions

An exponential functions have a:

Growth Factor when the thing being raised to a power is greater than one.

Decay Factor when the thing being raised to a power is between 0 and 1.

Mar 7-1:33 PM

In Class Work: pg. 47 - 48 #3 - 7

Mar 7-1:33 PM

Today's Activities:

- Exponential functions

P.W. for tonight:

- pg. 43 - 44 #1 - 7

Day 5

Feb 27-7:23 AM