Happy Wednesday, November 2nd!

Do Now: 
$$\frac{\log (6)}{\log (6)}$$

Find the domain and range of

$$f(x) = \log(x - 3)$$

$$10^{9} = \times -3 \quad R: \quad (-\infty, \infty)$$



Nov 2-7:22 AM

Quiz Monday so that we can Unit 3 Test on Friday and be done!!

No school Tuesday (election day)

Let's look at the homework together:

$$A = P\left(1 + \frac{r}{n}\right)$$

(1) How much money will you make if you invest \$27,000 at a rate of 3.75% compounded quarterly over three years? 0375 n=4

1b) Change this to compound monthly instead.

Nov 2-7:33 AM

Let's look at the homework together:

1) Half-life of strontium is 29 years. How much of a 200g sample will remain after 50 years?

Nov 2-7:33 AM

Let's look at the homework together:

$$A = P(0.5)^{t}$$

$$A =$$

a) New carbon activity is only .224 times that of today. What is the approximate age of the bone?

b) Fossil footprint: You don't have enough information! :(

## Exponential Population Model

If there starting population of a town was 10,000 and it grew by 17% a year, what would you do to get the population after one year?

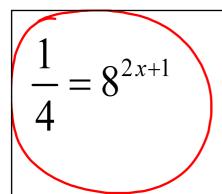
$$\frac{1}{2}$$
 10,000 (.17) + 10,000  
 $\frac{1}{2}$  10,000 (1.17)  
 $\frac{1}{2}$  10,000 (1.17)<sup>2</sup>  
 $\frac{1}{2}$   $A = P(1+r)^{\frac{1}{2}}$ 

Mar 13-9:06 PM

Properties of Exponential and Logarithmic Equations

$$a^x = a^y \qquad \log_a(a^x) = x$$

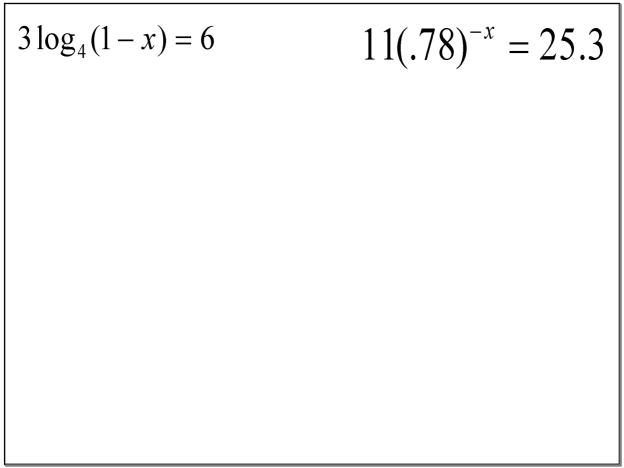
$$\log_a(x) = \log_a(y) \qquad \qquad a^{\log_a x} = x$$



$$32\left(\frac{1}{4}\right)^{x/3}=2$$

Nov 2-7:58 AM

Solve for x:



Nov 2-7:59 AM