1. Properties of Logarithms

a. Product Property:    
 

b. Quotient Property: 

c. Power Property: 

*Objective*: Learn to use the properties of logarithms to simplify, expand and solve equations. Also to learn to change bases.

2. Simplifying Logarithms

a. 

b. 

c. 

3. Expanding Logarithms

a. 

b. 

c. 

d. 

4. Common Logs – Calculating Logs with given approximations : Given , , 

a.  c. 

b.  d. 

5. Solving EXPONENTIAL EQUATIONS with logs. (Take log of both sides – then use calculator!)

a. Solve  b.  c.  d. 

6. Evaluating a log with any base - CHANGE OF BASE FORMULA

 \*\*\*Most of the time c=10 and you can use your calculator

a. 

b. 

c. 

7. Convert Bases – 3 steps 1. Convert to Base 10  
 2. Convert to new Base  
 3. Write an equivalent statement

a. Convert  to log with base 2

b. Convert  to logarithm base 8.

8. Solving Equations  
Find Exact  
a.  b.  c. 

Use Calculator and round to the thousandths if necessary

d.  e. 