**Trigonometry/Algebra**

1) An open-top box with a square base is to be constructed from 150 square centimeters of material.

What dimensions will produce a box with largest possible volume?

1. 
2. 
3. 
4. 
5. 

2) Assume *h* 0. Compute and simplify the difference quotient for *f*(*x*) = 1 / *x*.



3) Solve the inequality.



1. 
2. 
3. 
4. 
5. 

4) Solve the equation without using logarithms.



x=\_\_\_\_\_\_\_\_\_ Large x-Value

x=\_\_\_\_\_\_\_\_\_\_ Smaller x-Value

5) Solve the equation.



x=\_\_\_\_\_\_\_\_