**Logarithmic Functions**

1.

Sketch y = 10 x

What is the domain and range?

Sketch y = log10x

What is the domain and range?

What do you notice about the domain and range of the two functions?

What restrictions are there on the domain and ranges?

2. 10 4 = 10000

Write the equivalent logarithmic expression.

3. 10 -2 = 0.01

Write the equivalent logarithmic expression.

4. Log101000 = 3

Write the equivalent logarithmic expression

5. Log10 0.1 = -1

Write the equivalent logarithmic expression

6. log 2 16 = ?

7. log5 125 = ?

8. log4 18 = ?

9 . Sketch y = log2(x+3) + 6

Find the x and y intercepts

10. Sketch y = -log 6 (2(x-5)) - 1

Find the x and y intercepts

Homework: pg. 158 #9, pg. 458 #5 (and state intercepts), pg. 508 #11