FST Name:

PS 5.4 Date: Block:

***Problem Set 5.4***



**30) Graph the logarithmic functions. List at least 2 points on the graph of f(x). List the domain, range, and asymptotes as they apply.**

1. **f(x) =** $log\_{5}x$ **b) f(x) =** $log\_{3}\left(x+9\right)-5$

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**31 – 33] Use the definition of the logarithmic function to solve for the value of x.**

31. (a) log5 x = 4 (b) log100.1 = x

32. (a) log4 2 = x (b) log4 x = 2

33. (a) logx1000 = 3 (b) logx25 = 2

**34 – 35] Use the Change of Base Formula and a calculator to evaluate the logarithm, correct to six decimal places. Use either natural or common logarithms.**

34. log25 35. log52