**Algebra II Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Unit: 5** | **Homework**: 6 |
| **Standard**: **Build new functions from existing functions**  **MGSE9-12.F.BF.5 (+)** Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents. | |
| **Essential Questions:** How do I graph a logarithmic function? | |
| **Key Words**: logarithm, common logarithm, logarithmic function, | |
| a207c07_rt_l03ak_001a_AComplete the tables. Graph the functions.  1. f (x)  4 *x*   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | x | 2 | 1 | 0 | 1 | 2 | | **f (**x) |  |  |  |  |  |   *f*1(*x*)  log4 *x*   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | x |  |  |  |  |  | | f1(x) |  |  |  |  |  | | |
| Use the given *x*-values to graph each function. Then graph its inverse. | |
| a207c07_prb_l03ak_001a_A2. f (x)  0.1 x; *x*  1, 0, 1, 2 | a207c07_prb_l03ak_001a_A3. ; *x*  3, 2, 1, 0, 1, 2 |
| 4. f (x )  2 *x* ; *x*  2, 1, 0, 1, 2, 3  *a207c07_prb_l03ak_001a_A* | a207c07_prb_l03ak_002a_A5. ; *x*  3, 2, 1 , 0, 1, 2 |