**CCGPS Advanced Algebra Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Unit: 2** | **Homework**: 7 |
| **Standard**: **Build new functions from existing functions**  **MGSE9-12.F.BF.4** Find inverse functions.  **MGSE9-12.F.BF.4b** Verify by composition that one function is the inverse of another.  **MGSE9-12.F.BF.4c** Read values of an inverse function from a graph or table, given that the function has an inverse. | |
| **Essential Questions:** How can I determine the inverse of a polynomial function? | |
| **Key Words**: polynomial function, function composition, inverse function | |
| For #1-2, complete the table for the given function. Then use the table to graph the function with a solid line and the INVERSE of the function with a dashed line. | |

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| |  |  | | --- | --- | | x | f(x) | | -5 |  | | -4 |  | | -3 |  | | -2 |  | | -1 |  | | 0 |  | | 1 |  | | 2 |  | | 3 |  | | 4 |  | | 5 |  |   1. f(x) = 2x + 1  [image] | |  |  | | --- | --- | | x | f(x) | | -5 |  | | -4 |  | | -3 |  | | -2 |  | | -1 |  | | 0 |  | | 1 |  | | 2 |  | | 3 |  | | 4 |  | | 5 |  |   1. f(x) = -3x + 2  [image] |
| For #3-6, find the inverse of each function. | |
| 3. | 4. |
| 5. | 6. |
| For #7-8, use function composition to determine if and are inverses. | |
| 7. | 8. |