**Algebra 2 – Quiz on Inverses**  Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Fill in the table so it represents the inverse of f(x).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x**f(x)** | 1 | 2 | 3 | 4 | 5 | 6 |
| y | 2 | 4 | 6 | 8 | 10 | 12 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x**f-1(x)** |  |  |  |  |  |  |
| y |  |  |  |  |  |  |

2. Find the inverse of f(x). Then graph both functions on the same grid.



 f(x) = 2x – 1

3. Find the inverse of g(x). Then graph both functions on the same grid.



 g(x) = ½ x2

4. Find the inverse of h(x). Then graph both functions on the same grid.



 h(x) = 0.5x3

5. Find the inverse of f(x) = ¼ x + 3

6. Find the inverse of g(x) = 1/5 x2

7. Find the inverse of h(x) = – 3x3

E.C. Pick problem 5, 6, or 7 and prove algebraically they are inverses of each other.