Name \_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_

**Functions and Inverse Functions**

*For each relation, determine whether it is a function* ***and*** *whether its inverse is a function.* ***Write yes or no in each blank.***

 Relation is a Function Inverse is a Function

1. {(-2, 7), (6, 2), (-2, -3), (0, 9)} 1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. {(-5, 2), (5, 2), (0, -3), (3, -8), (-7, 4), (-1, -1)} 2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. {(-7, 2), (4, -6), (2, 2), (-3, 9), (0, -11). (4, 0)} 3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. 5. 4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. 7. 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Find the indicated values for the function. Write your answer in function notation.*

8. $f\left(x\right)=4x-7$ a) $f(3)$ b) $f(-5)$ a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. $g\left(x\right)=x^{2}+5x-1$ a) $g\left(6\right)$ b) $g\left(-4\right)$ a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. $h\left(x\right)=-2x^{2}-3x+8$ a) $h(-3)$ b) $h(0)$ a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. $p\left(x\right)= -x^{2}+3x+2$ a) $p(2)$ b) $p(-2)$ a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. $k\left(t\right)= \frac{t^{2}+2t}{t-5}$ a) $k(4)$ b) $k(-2)$ a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_