**Unit 6 Review**

**Multiply or divide the following rational expressions and find the excluded vales.**

1. Divide 

1. Multiply

1. Multiply  4. Divide 

**Find the LCD of the following rational equations:**

 5.  6. 

**Add or subtract the following expressions, simplify the results, and note the excluded values.**

7.  8. 

9.  10. 

**Solve algebraically the following rational equations**

**11.** 

12. 

13. 

14. A restaurant has two pastry ovens. When both ovens are used, it takes about 3 hours to bake the bread needed for one day. When only the large oven is used, it takes about 4 hours to bake the bread for one day. About how long would it take to bake the bread for one day if only the small oven were used? Explain how you got your answer.

15. Fred is kayaking on a river. He travels 6 miles upstream and 6 miles downstream in a total of 8 hours. In still water, Fred can travel at an average speed of 2 miles per hour. What is the average speed of the river’s current?

16. Find the inverse of the following function: 

17. Are the following inverses of each other?  and 

18. Find the inverse of 

18. Given $-2$ is a zero of $f\left(x\right)=x^{4}-x^{3}-2x^{2}-4x-24$, find the remaining zeros and write a linear factorization.