\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ REVIEW FOR FINAL EXAM PART 1 FALL, 2017

1. Factor.

a.  b. 

c.  d. 

2. In 2005, the domestic fish and shellfish catch was 9.7 billion pounds; in 2010, it was 8.2 billion pounds. Let y represent the catch in billions of pound and x represent the year with  representing the year 2005.

A. Write the linear equation illustrating this relationship.

B. Use this equation to approximate the catch in 2013.

3. For  ,

a. find the equations of the vertical and horizontal asymptotes.

b. find the x and y intercepts.

c. graph.

4. Graph  .

5. Expand  by using the properties of logarithms.

6. Use substitution to find  .

7. Evaluate.

a.  b. 

8. Find the average rate of change of  from  to  .

9. Use  to find the derivative of  .

Find the derivative of:

10. 

11. 

12. 