Series Questions Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What are all values of *x* for which the series  converges?

(A)  (B)  (C) 

(D)  (E) 

2. The coefficient of  in the Taylor series for  at *x* = 0 is

(A)  (B)  (C)  (D)  (E) 

3. A function *f* has a Maclaurin series given by  What is ?

4. The function *f* has derivatives of all orders for all real numbers *x*. Assume 

  Write the third-degree Taylor polynomial for *f* about *x* = 2.

Find a Maclaurin polynomial of degree *n* for each of the following.

5. 

 6. 

7. 

Find a Taylor polynomial of degree *n* for each of the following.

8. 

9. 

10. .