DUE: THURSDAY OCTOBER 10, 2019

To receive full credit, you must exhibit the intermediate steps that lead you to your final results.

1. Boas, p. 20, problem 1.9–22

2. Boas, p. 22, problem 1.10–8

3. Boas, p. 29, problem 1.13–4.

4. Boas, p. 32, problem 1.13–13. The computer analysis is optional.

5. Boas, p. 36, problem 1.14–6.

6. Boas, p. 40, problem 1.15–2. Compare your results with a calculation performed either with a computer (e.g. Mathematica) or a calculator.

7. Boas, p. 41, problem 1.15–15.

8. Boas, p. 41, problem 1.15–18.

9. Boas, p. 41, problem 1.15–23. The computer comparison is optional.

10. Find the *behavior* of the functions analyzed in the previous problem as $x \to 0$. Although Boas suggests that you should first combine the fractions, this hint is less useful for determining the behavior as $x \to 0$.

11. Boas, p. 43, problem 1.15–32.

12. Boas, p. 45, problem 1.16–23.