

Math 532: Homework 4
Due 9/25/19
Everyone turns in an individual copy.

1. (2pts) each, 2.14.3, 2.24.1 (c),(d),
2. (5pts) 2.18.7
3. (3pts) 2.18.11
4. (3pts) 2.20.4
5. (5pts) Using the formal definition of the derivative, show that

$$\frac{d}{dz}z^n = nz^{n-1}, \quad n \in \mathbb{N}.$$

What would you do if n is a negative integer? See problem 2.20.7 for reference.

6. (5pts) 2.24.8