

## Math 6301 Homework 4

John Zweck

1. **A.2D:** 14. In addition show that  $\frac{1}{4}$  is not an endpoint of any of the removed middle-third intervals
2. **A.2D:** 18
3. Show that  $x \in \bigcup_{j=1}^{\infty} G_j$  if and only if every base 3 expansion of  $x$  contains at least one 1.
4. History Notes Problem 10, parts 1,6,7,8
5. History Notes Problem 11, parts 1,2,3

### Additional Problem [Not not hand in]

1. **A.2D:** 15
2. **A.2D:** 16
3. **A.2D:** 17
4. **J.2A:** 15
5. History Notes Problem 13