Problem Set 1, 16300 Section 21

Due Friday April 3 in class.

1. Problem 22-1 from Spivak, the even parts. For part (x), use 2-7.

2. Problem 22-7 from Spivak.

3. Problem 22-16 from Spivak. Hint: write
\[ \frac{a_1 + \ldots + a_n}{n} = \frac{a_1 + \ldots + a_k}{n} + \frac{a_{k+1} + \ldots + a_n}{n} \]
Given \( \epsilon > 0 \), first choose \( k \) sufficiently large and then choose \( n \) sufficiently large.

4. Problem 22-23 from Spivak.

5. Problem 22-27 from Spivak.