Make use of the following results:
1. The definition of boundary point to figure out which points are in the boundary of a set.
2. A set is open if it contains none of its boundary points or if each point of the set has a ball around it such that the ball is completely contained in the set.
3. A set is closed iff its complement is open. Sometimes it is easier to figure out whether a set is open or closed by looking at its complement.

Assignment #12: Due Wednesday, October 28 at the start of class.

S.1. Make a sketch of the function $f(x) = x \sin x$ for $x \geq 0$. Discuss $\lim_{x \to \infty} f(x)$.

Morgan: Ch. 5 #1, 2, 3, 5

Assignment #13: Due Friday, Oct 30 at the start of class.

Morgan: Ch. 5. # 4, 6, 7, 10, 13

A HW redo problem.

Revisit limits: S.1. Determine $\lim_{n \to \infty} \frac{2n+3}{3n+6}$. Prove your result using the $\epsilon - N$ definition of limit of a sequence.