Before Class

- Read the section titled "Continuity" on page 117 in your text.
- p. 121, # 9, 17, 21 (Use a continuity argument. I've provided an extremely verbose examples of what I mean by that. You don't have to write exactly like I do, but it should hit all the same important points.)

Find $\lim_{x\to 1} \frac{x}{x+2}$ using a continuity argument.

The function $\frac{x}{x+2}$ is a rational function. As such, it is continuous on its domain. Its domain is all x satisfying $x + 2 \neq 0$. In other words, its domain is $x \neq -2$. Since x is approaching 1 in our problem (which belongs to the domain of this function), we know the function is continuous at $x = 1$. We may therefore conclude

$$\lim_{x\to 1} \frac{x}{x+2} = \frac{1}{1+2} = \frac{1}{3}.$$

During Class

- p. 121, 13, 17, 19, 21, 32, 36, 55, 59, 63