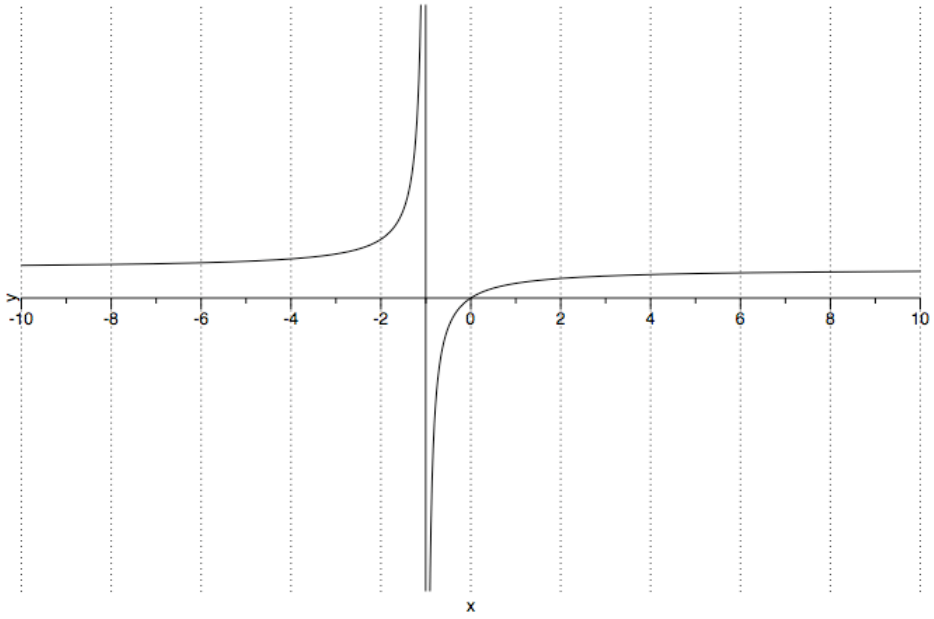
p. 137

Correction from lecture:

23.) Find the values of $x \in \Re$ for which the given function is continuous:
$f(x) = \ln\left(\frac{x}{x+1}\right)$

$\ln(x)$ is continuous on $(0,\infty)$. The domain of $g(x) = \frac{x}{x+1}$ is $\{x \in \Re \mid x \neq -1\}$. Let's see what the range of $g(x) = \frac{x}{x+1}$ is:



The range of $g(x)$ is positive from $(-\infty,-1) \cup (0,\infty)$. Therefore $f(x) = \ln(g(x))$ is defined there, and $f(x)$ is continuous on $(-\infty,-1) \cup (0,\infty)$.