

name: Solution

1 (10 points). Graph the function

$$f(x) = \begin{cases} \frac{x^2 - x}{x - 1}, & x \neq 1; \\ 2, & x = 1. \end{cases}$$

$$f(x) = \begin{cases} \frac{x^2 - x}{x - 1} = \frac{x(x-1)}{x-1} = x, & x \neq 1 \\ 2 = 2 = 2, & x = 1 \end{cases}$$

So everywhere except $x=1$, $f(x)=x$
 at $x=1$, $f(x)=2$.

