

**Survey of Calculus**

**Exercise:** Determine  $\lim_{x \rightarrow 4} f(x)$  for the function  $f$  defined by

$$f(x) = \begin{cases} x^2 - 6, & \text{if } x \neq 4, \\ 1, & \text{if } x = 4. \end{cases}$$