

8. For what fixed value(s) of k do the following limits exist, and why?

(a) (4 points)

$$\lim_{x \rightarrow 1} \frac{x - k}{x - 1}$$

(b) (3 points)

$$\lim_{x \rightarrow 2} \frac{x^2 + x - k}{x - 2}$$