

Let  $X = \mathbb{R} - \{-1\}$  and  $Y = \mathbb{R} - \{3\}$ . Let  $f : X \rightarrow Y$  be given by  $f(x) = \frac{3x+2}{x+1}$ .

(a) Show that  $f$  is well-defined.

(b) Prove that  $f$  is a bijection.