

5 A function f is such that $f(x) = \frac{15}{2x+3}$ for $0 \leq x \leq 6$.

(i) Find an expression for $f'(x)$ and use your result to explain why f has an inverse. [3]

(ii) Find an expression for $f^{-1}(x)$, and state the domain and range of f^{-1} . [4]