

8 A function f is defined by $f : x \mapsto (2x - 3)^3 - 8$, for $2 \leq x \leq 4$.

(i) Find an expression, in terms of x , for $f'(x)$ and show that f is an increasing function. [4]

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