



The diagram shows the function f defined for $-1 \leq x \leq 4$, where

$$f(x) = \begin{cases} 3x - 2 & \text{for } -1 \leq x \leq 1, \\ \frac{4}{5-x} & \text{for } 1 < x \leq 4. \end{cases}$$

- (i) State the range of f . [1]
- (ii) Copy the diagram and on your copy sketch the graph of $y = f^{-1}(x)$. [2]
- (iii) Obtain expressions to define the function f^{-1} , giving also the set of values for which each expression is valid. [6]