

17 The function f is defined by $f(x) = |x| + 1$ for $x \in \mathbb{R}$

The function g is defined by $g(x) = \ln x$

where g has its greatest possible domain.

17 (a) Using set notation, state the range of f [2 marks]

17 (b) State the domain of g [1 mark]

17 (c) The composite function h is given by $h(x) = gf(x)$ for $x \in \mathbb{R}$

17 (c) (i) Write down an expression for $h(x)$ in terms of x [1 mark]

17 (c) (ii) Determine if h has an inverse.
Fully justify your answer. [2 marks]