

11. The function f is defined by

$$f(x) = \frac{2 + 3x}{x} \quad x > 0$$

(a) Find the value of a such that

$$f^{-1}(a) = \frac{5}{3}$$

(2)

(b) Explain why there are no values of x for which

$$f(x) < \frac{3}{2}$$

(2)

(c) Show that f is a decreasing function.

(2)