9 The function f is defined by $f(x) = \frac{4}{(3x-6)^2} + \frac{1}{(3x-6)^3}$ for $x > 2$.

(a) Find an expression for $f'(x)$ and hence determine whether f is an increasing function, a decreasing function or neither. [4]

(b) State whether f^{-1} exists. Give a reason for your answer. [1]

The function g is defined by $g(x) = 4x - 3$ for $x > a$.

(c) Find the range of g in terms of the constant a. [1]

(d) Find the set of values of a for which the composite function fg exists. [2]