A function, f, defined on $\mathbb{R}$, is such that

- the maximum value of f is 8
- the maximum occurs when $x = 6$.

The function g is given by $g(x) = 2f(x) - 9$.

(a) State the maximum value of g.   **1**

The function h is given by $h(x) = f(x-4) + 5$.

(b)   (i) State the maximum value of h.   **1**

    (ii) State the value of x when the maximum value of h occurs.   **1**

Answers:

(a)   7

(b)   (i)   13

      (ii)   10