Homework: IB Differential calculus exam problems

1. The values for $f(x)$, $g(x)$, and their derivatives when $x = 2$ and $x = 5$ are given in the table.

x	$f(x)$	$f'(x)$	$g(x)$	$g'(x)$
2	3	2	5	-2
5	-1	4	2	3

Let $h(x) = f(x)g(x)$

   (a) Find $h(2)$.

   (b) Find $h'(5)$.

2. A farmer wishes to create a rectangular enclosure, ABCD, of area $525\ m^2$, as shown below.