6. (12 points) Suppose f and g are differentiable functions with values given by the table below. **To receive full credit, for each part below first show the formula for the derivative in terms of x, and *then* find the requested value.**

x	$f(x)$	$g(x)$	$f'(x)$	$g'(x)$
1	6	9	14	-7
2	4	13	1	-11

(a) If $h(x) = f(x)g(x)$, find $h'(1)$.

.

(b) If $j(x) = \dfrac{\ln(x)}{f(x)}$, find $j'(1)$

.

(c) If $d(x) = \sin\left(\cos\left(f(x)\right)\right)$, find $d'(1)$.

.

(d) If $t(x) = g(x)g(2x)$, find $t'(1)$.