

2. (4 points each) Suppose f and g are differentiable functions with values given by the table below:

x	$f(x)$	$g(x)$	$f'(x)$	$g'(x)$
1	2	9	-3	7
3	4	11	15	-19

(a) If $h(x) = f(x)g(x)$, find $h'(3)$.

(b) If $j(x) = \frac{(g(x))^3}{f(x)}$, find $j'(1)$.

(c) If $d(x) = x \ln(e^{f(x)})$, find $d'(3)$.

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