

MA 181 WORKSHEET (3.2) B

Name _____

Assume that $f(x)$ and $g(x)$ are differentiable functions.

x	f(x)	f'(x)	g(x)	g'(x)
-2	3	1	-5	8
-1	-9	7	4	1
0	5	9	9	-3
1	3	-3	2	6
2	-5	3	8	?

Use the given table and the rules of differentiation to find the following.

1. Let $h(x) = e^x f(x)$. What is $h'(0)$?

2. Let $j(x) = -4f(x)g(x)$. What is $j'(1)$?

3. Let $k(x) = \frac{xf(x)}{g(x)}$. What is $k'(-2)$?

4. Let $m(x) = x^3 g(x)$. If $m'(2) = -48$, what is $g'(2)$?