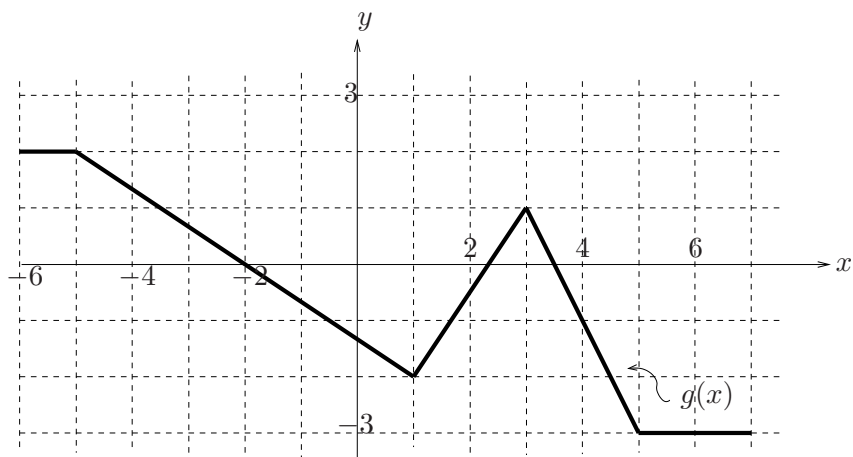


3. (16 points) Some values for a differentiable function f are given in the table below, and the graph of $y = g(x)$ on the interval $[-6, 7]$ is given in the figure below. Do not assume any information about f or g other than what is given.



x	-4	-3	-2	-1	0	1	2	3	4
$f(x)$	0.5	4	7.5	10	9	5	0	3	9
$f'(x)$	3	4	3	2	-1	-7	-2	4	6

Use the table and the graph to find the following, if possible. If any information is missing, explain *clearly* what is missing. Show your work.

(a) Find $h'(4)$ if $h(x) = g(x)f(x)$.

(b) Find $h'(4)$ if $h(x) = g(f(x))$.

(c) Find $h'(-2)$ if $h(x) = 4 \sin(g(x)) - \pi$.

(d) Find $h'(1)$ if $h(x) = (g(x))^2$.