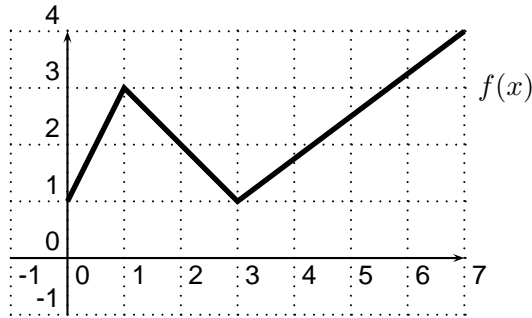


2. [12 points]

Use the graph of the function f and the table of values for the function g to answer the questions below.



x	1	2	3	4	5	6
$g(x)$	0	4	0	-18	-56	-120
$g'(x)$	6	1	-10	-27	-50	-79
$g''(x)$	-2	-8	-14	-20	-26	-32

a. [6 points] Let $h(x) = \frac{g(x)}{f(2x+3)}$. Find $h'(1)$ or explain why it does not exist.

b. [6 points] Let $k(x) = g(g(x))$. Determine whether k is increasing or decreasing at $x = 2$.