

DATE: _____

x	-2	$-2 < x < -1$	-1	$-1 < x < 1$	1	$1 < x < 3$	3
$f(x)$	12	Positive	8	Positive	2	Positive	7
$f'(x)$	-5	Negative	0	Negative	0	Positive	$\frac{1}{2}$
$g(x)$	-1	Negative	0	Positive	3	Positive	1
$g'(x)$	2	Positive	$\frac{3}{2}$	Positive	0	Negative	-2

The twice-differentiable functions f and g are defined for all real numbers x . Values of f , f' , g , and g' for various values of x are given in the table above.

a) Find the x -coordinate of each relative minimum of f on the interval $[-2,3]$. Justify your answers.

b) The function h is defined by $h(x) = \ln(g(x))$. Determine the x -coordinate of each relative minimum and maximum of h on the interval $[-2,3]$.