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PROPERTIES OF LOGARITHMIC FUNCTIONS

TABLE–SELECTION GAME

Select one or more correct answers for each of the questions in the test and press the Finish button at the end. The answers will be validated automatically.

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Let

$$f(x) = \log_5 x\ , \qquad g(x) = \log_{\frac{1}{2}}(x+1)\ , \qquad h(x) = \log_2(x) + 1\ ,$$
$$k(x) = \log_{\frac{1}{4}}(x-1) + 1\ , \qquad l(x) = -\log_3(-x)\ , \qquad m(x) = \log_3(1-x) + 1\ .$$

In the table, at each line, choose the functions for which the statement is true.

		$f(x)$	$g(x)$	$h(x)$	$k(x)$	$l(x)$	$m(x)$
1.	The function is increasing.	☐	☐	☐	☐	☐	☐
2.	The function is decreasing.	☐	☐	☐	☐	☐	☐
3.	The function is an injective (one-to-one) function.	☐	☐	☐	☐	☐	☐
4.	The function has a vertical asymptote at $x = 1$.	☐	☐	☐	☐	☐	☐
5.	The function has a domain of $(-\infty; 1)$.	☐	☐	☐	☐	☐	☐
6.	The function has a range of $(-\infty; \infty)$.	☐	☐	☐	☐	☐	☐