

21. The functions  $f(x)$  and  $g(x)$  have key features that may be compared. All input- and output-values of the function  $f(x)$  are recorded in the function table below. The function  $g(x) = -5x + 17$ .

$x$	$f(x)$
-6	0
-3	4
0	8
3	12

What are the domains and ranges of  $f(x)$  and  $g(x)$ ?

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22. An arithmetic sequence is shown below.

..., 12, 17, 22, 27, 32, 37, ...

- A. What is the explicit formula for  $a_n$ , the  $n$ th term of the sequence?

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- B. Why can an arithmetic sequence be written as a function in this way? Use a generalized arithmetic sequence and the concept of rate of change in your explanation.

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