

Let the function f be given by the rule $f(x) = 2x + \frac{1}{x}$

1. Compute
 - a) $f(t)$
 - b) $f\left(\frac{1}{2}\right)$
 - c) $f(x+h)$

2. By convention, what is the domain of f ?

3. Let the function G be given by the equation $G(x) = \frac{x^2 - 9}{x - 3}$. Fill in the following table:

x	$G(x)$
0	
1	
2	
3	
4	
5	
6	
t	

4. If you did the above correctly, there was a problem with $G(3)$. By looking at the pattern, what might it reasonably be if it was defined?

5. Find $\lim_{x \rightarrow 3} G(x)$