

Exercise 1 Let $f(x) = x^2 + 3x - 7$ and $a = 1$. Observe the table of values for $\frac{f(a+h) - f(a)}{h}$:

h	$\frac{f(a+h) - f(a)}{h}$
-0.1	4.9
-0.01	4.99
0.01	5.01
0.1	5.1

The limit as $h \rightarrow 0$ is approximately 5.