## Rewriting the Formula as a Function

$$
\begin{gathered}
\mathrm{A}(\mathrm{n})=5 \mathrm{n}-1 \\
f(\mathrm{n})=5 \mathrm{n}-1 \quad \text { or } \quad \mathrm{f}(\mathrm{x})=5 \mathrm{x}-1
\end{gathered}
$$

Since I am adding a constant, we should clearly recognize the pattern as a linear function.

Using the function rule instead of the formula makes working with arithmetic sequences even easier. Now, if I want to find the $20^{\text {th }}$ term of the sequence defined by the function, I merely substitute that into the function rule.

$$
\begin{aligned}
& f(n)=5 n-1 \text { describes the sequence } \\
& f(20)=5(20)-1 \\
& f(20)=99 .
\end{aligned}
$$

