## Connecting Sequences to Linear Functions

The following is the explicit formula of a sequence: $f(n)=3 n-1$
What does n represent?

What does $f(n)$ represent?

What does the 3 present?

Find the $1^{\text {st }} 5$ terms and graph the sequence $f(n)=3 n-1$

| $n$ | $\mathrm{f}(\mathrm{n})$ |
| :--- | :--- |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |



What part of the equation represents the vertical movement from point to point on the graph?

A linear function can have the following form: $y=m x+b$. Here is an example: $y=3 x-1$
How are the explicit formula and linear equations similar? Here they are one more time: $\begin{array}{r}f(n)=3 n-1 \\ y=3 x-1\end{array}$

How are they different?

Now graph $y=3 x-1$ by completing the table below first.

| $x$ | $y$ |
| :--- | :--- |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |

How are the two graphs the same?

How are they different?


What does the constant (-1 or minus 1 ) represent on the $2^{\text {nd }}$ graph?

