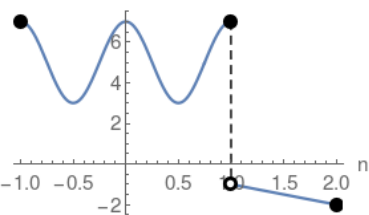


Piecewise Functions

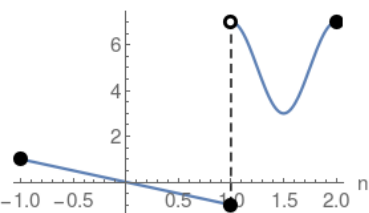
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the n-axis

$$\begin{cases} 2 \cos(2 \pi n) + 5 & -1 \leq n \leq 1 \\ -n & 1 < n \leq 2 \end{cases}$$



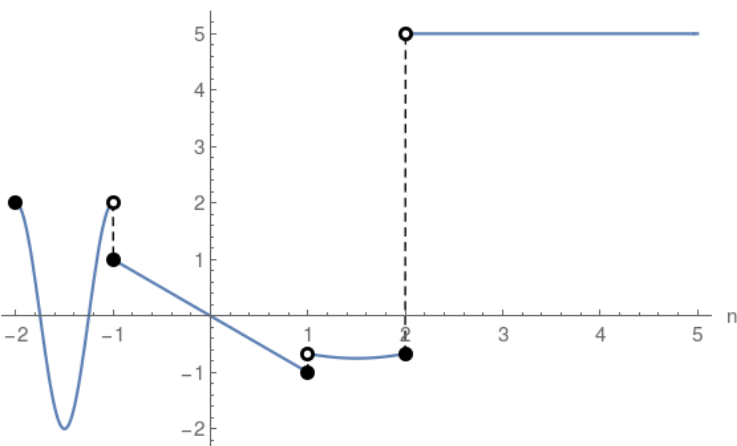
where two functions are stitched together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} -n & -1 \leq n \leq 1 \\ 2 \cos(2 \pi n) + 5 & 1 < n \leq 2 \end{cases}$$



More and more complicated functions could be stitched together:

$$\begin{cases} 2 \cos(2 \pi n) & -2 \leq n < -1 \\ -n & -1 \leq n \leq 1 \\ \frac{n^2}{3} - n & 1 < n \leq 2 \\ 5 & n > 2 \end{cases}$$



Solid disk refers to inclusion of the point or any of $\leq \geq =$ operators



Hollow disk refers to the exclusion or any of the $< >$ operators

