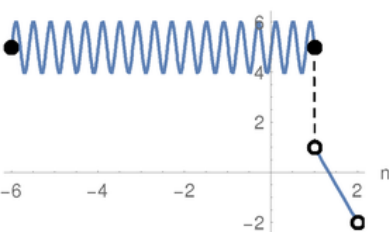


Piecewise Functions

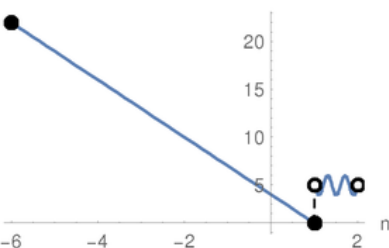
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the n-axis

$$\begin{cases} \sin(5\pi n) + 5 & -6 \leq n \leq 1 \\ 4 - 3n & 1 < n < 2 \end{cases}$$



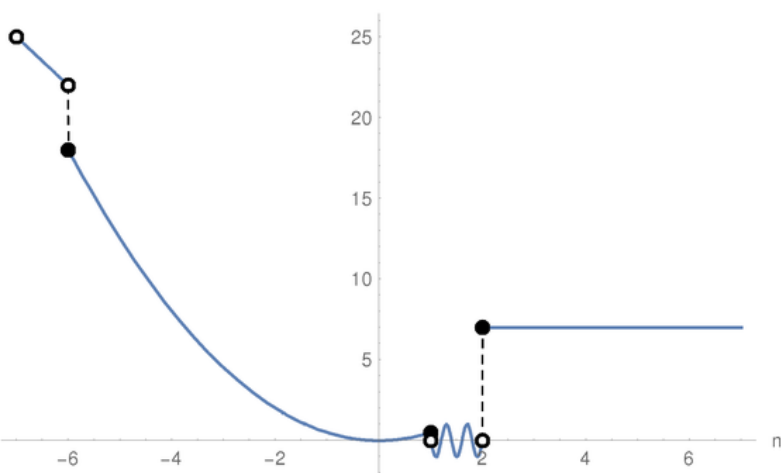
where two functions are glued together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} 4 - 3n & -6 \leq n \leq 1 \\ \sin(5\pi n) + 5 & 1 < n < 2 \end{cases}$$



More and more complicated functions could be glued together:

$$\begin{cases} 4 - 3n & -7 < n < -6 \\ \frac{n^2}{2} & -6 \leq n \leq 1 \\ \sin(5\pi n) & 1 < n < 2 \\ 7 & n \geq 2 \end{cases}$$



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



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

