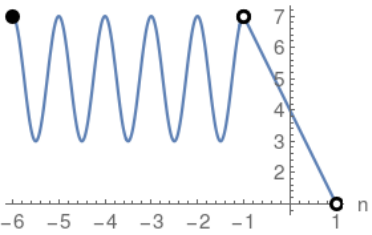
Piecewise Functions

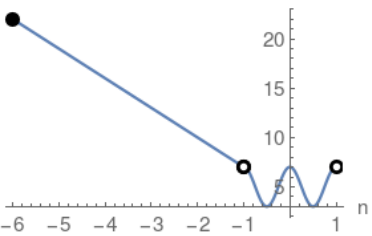
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the n-axis

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



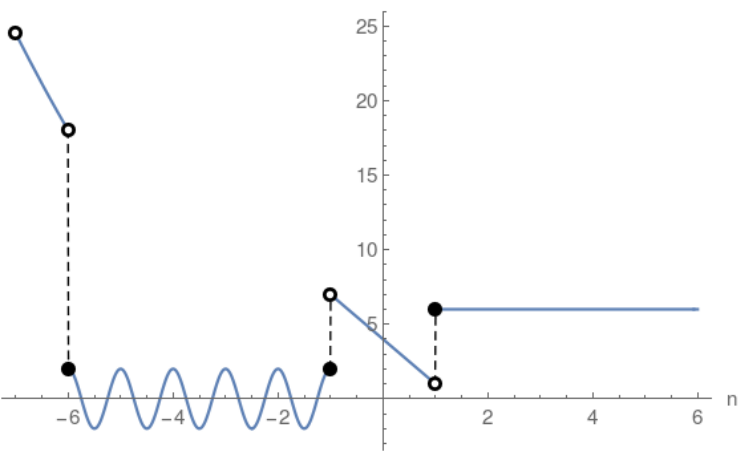
where two functions are juxtaposed together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be juxtaposed together:

$$\begin{cases} \frac{n^2}{2} & -7 < n < -6 \\ 2\cos(2\pi n) & -6 \le n \le -1 \\ 4 - 3n & -1 < n < 1 \\ 6 & n \ge 1 \end{cases}$$



Solid disk refers to inclusion of the point or any of $\leqslant$ $\geqslant$ $=$ operators

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

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