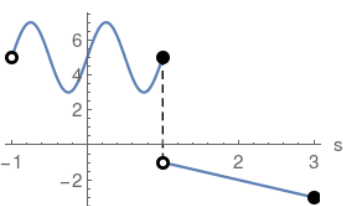


Piecewise Functions

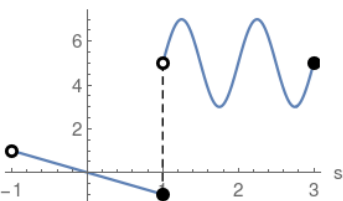
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the s-axis

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



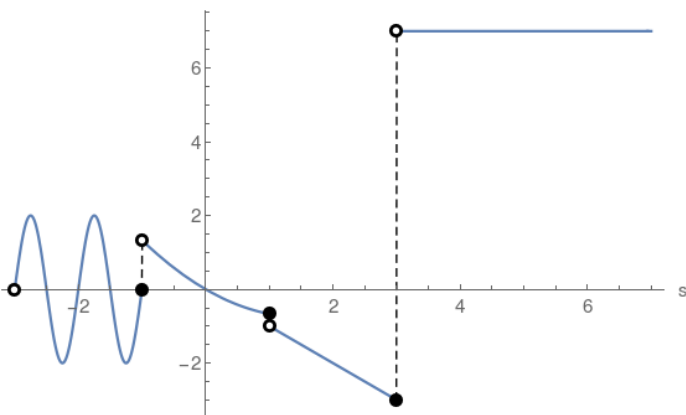
where two functions are stitched together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be stitched together:

$$\begin{cases} 2 \sin(2 \pi s) & -3 < s \leq -1 \\ \frac{s^2}{3} - s & -1 < s \leq 1 \\ -s & 1 < s \leq 3 \\ 7 & s > 3 \end{cases}$$



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

