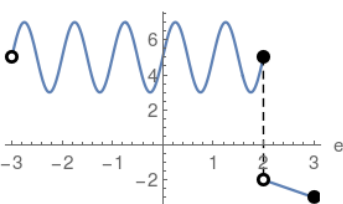


Piecewise Functions

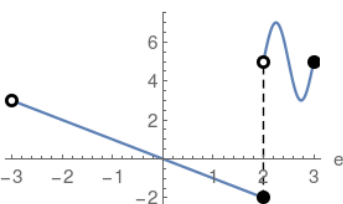
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the e-axis

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



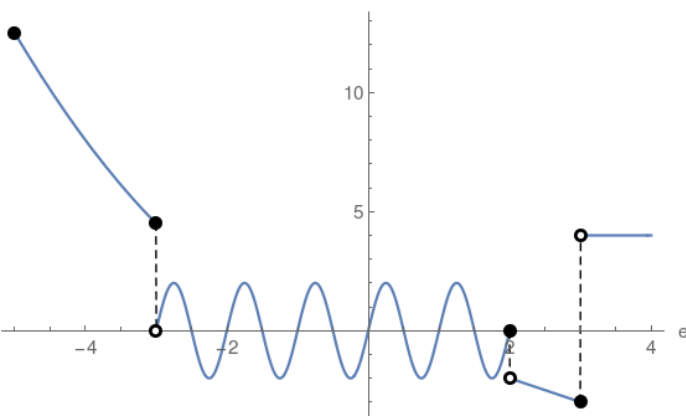
where two functions are pieced together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be pieced together:

$$\begin{cases} \frac{e^2}{2} & -5 \leq e \leq -3 \\ 2 \sin(2 \pi e) & -3 < e \leq 2 \\ -e & 2 < e \leq 3 \\ 4 & e > 3 \end{cases}$$



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

