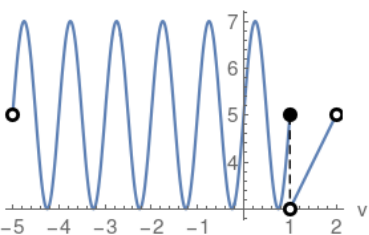


Piecewise Functions

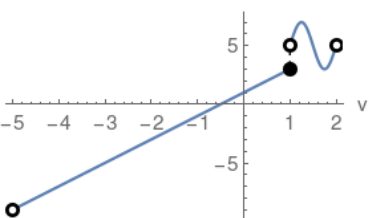
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the v-axis

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



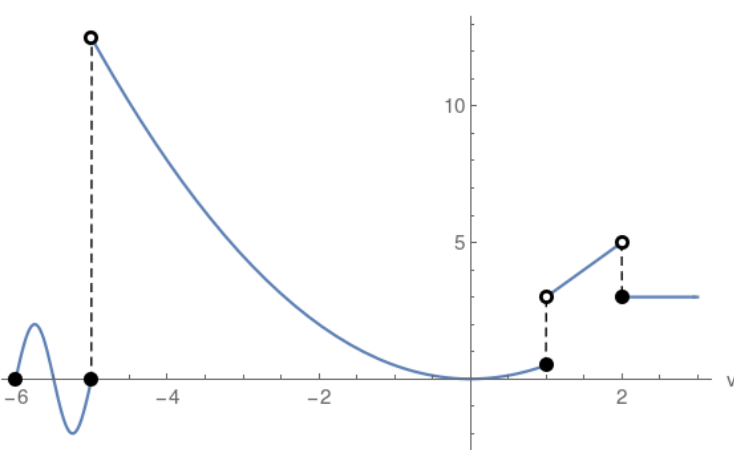
where two functions are placed together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be placed together:

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



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

