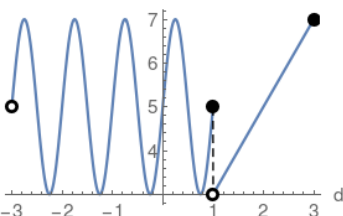


Piecewise Functions

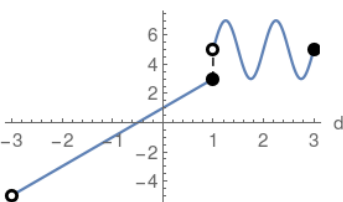
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the d-axis

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



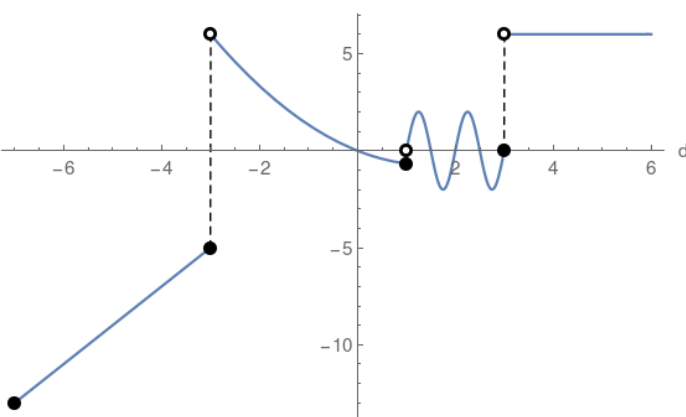
where two functions are stitched together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be stitched together:

$$\begin{cases} 2d + 1 & -7 \leq d \leq -3 \\ \frac{d^2}{3} - d & -3 < d \leq 1 \\ 2 \sin(2 \pi d) & 1 < d \leq 3 \\ 6 & d > 3 \end{cases}$$



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

