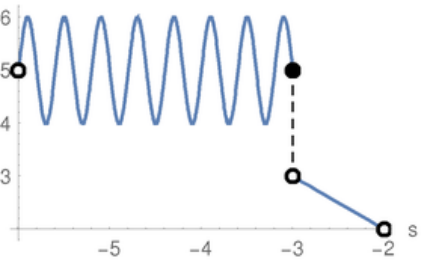
Piecewise Functions

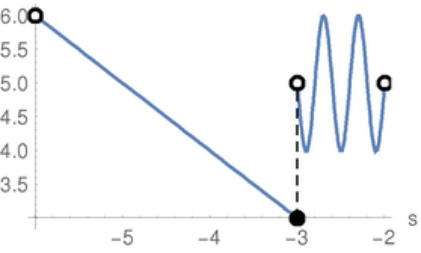
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the s-axis

$$\begin{cases} \sin(5\pi s) + 5 & -6 < s \leq -3 \\ -s & -3 < s < -2 \end{cases}$$



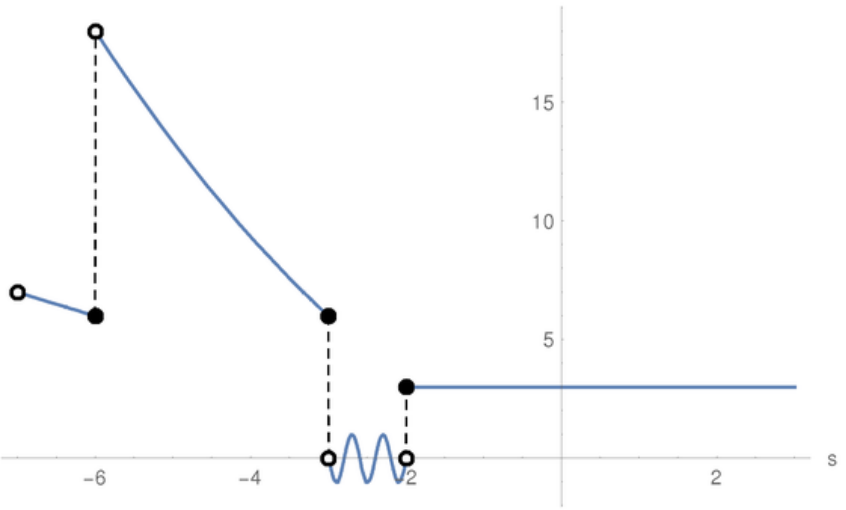
where two functions are juxtaposed together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} -s & -6 < s \leq -3 \\ \sin(5\pi s) + 5 & -3 < s < -2 \end{cases}$$



More and more complicated functions could be juxtaposed together:

$$\begin{cases} -s & -7 < s \leq -6 \\ \frac{s^2}{3} - s & -6 < s \leq -3 \\ \sin(5\pi s) & -3 < s < -2 \\ 3 & s \geq -2 \end{cases}$$



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

●

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

○