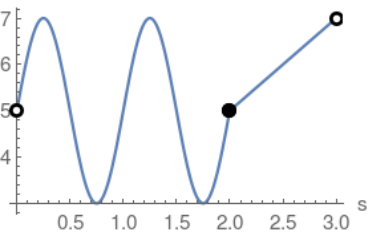
Piecewise Functions

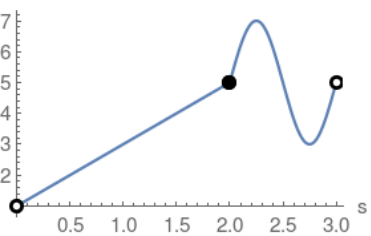
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the s-axis

$$\begin{cases} 2\sin(2\pi s) + 5 & 0 < s < 2 \\ 2s + 1 & 2 \le s < 3 \end{cases}$$



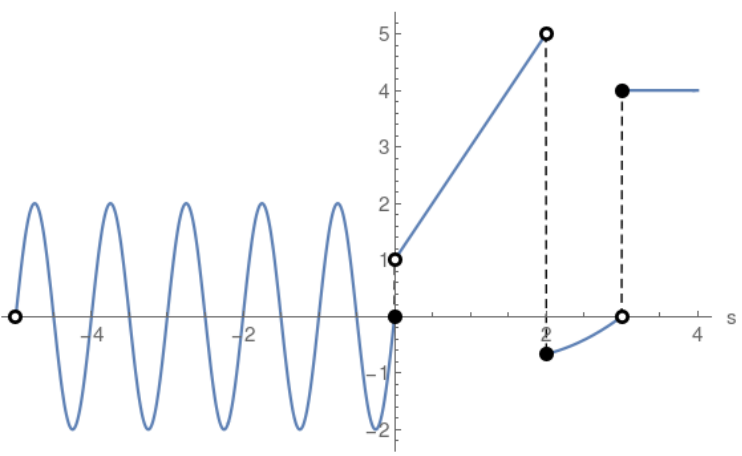
where two functions are placed together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} 2s + 1 & 0 < s < 2 \\ 2\sin(2\pi s) + 5 & 2 \le s < 3 \end{cases}$$



More and more complicated functions could be placed together:

$$\begin{cases} 2\sin(2\pi s) & -5 < s \le 0 \\ 2s + 1 & 0 < s < 2 \\ \frac{s^2}{3} - s & 2 \le s < 3 \\ 4 & s \ge 3 \end{cases}$$



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

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

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