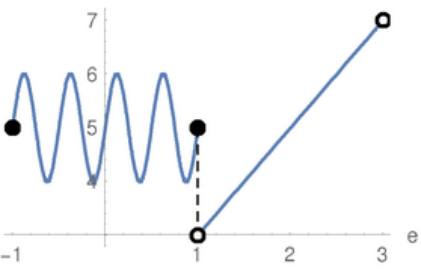
Piecewise Functions

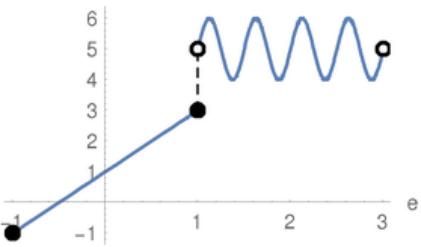
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the e-axis

$$\begin{cases} \sin(4\pi e) + 5 & -1 \le e \le 1 \\ 2e + 1 & 1 < e < 3 \end{cases}$$



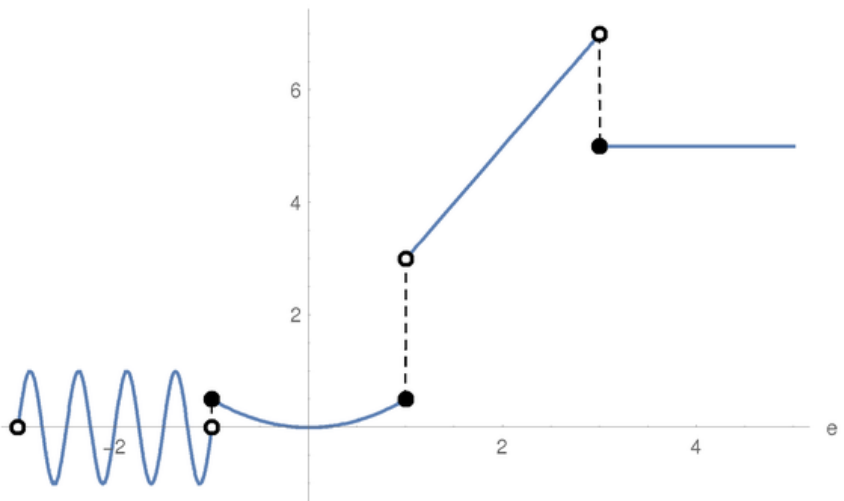
where two functions are juxtaposed together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} 2e + 1 & -1 \le e \le 1 \\ \sin(4\pi e) + 5 & 1 < e < 3 \end{cases}$$



More and more complicated functions could be juxtaposed together:

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



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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