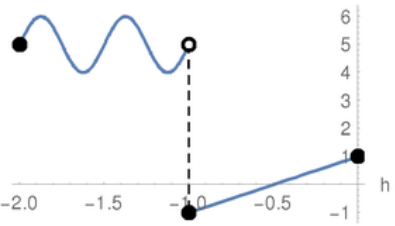
# Piecewise Functions

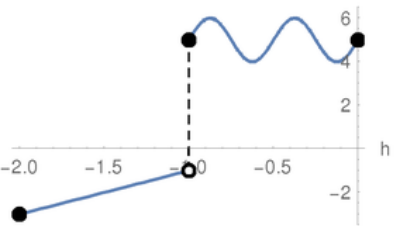
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the h-axis

$$\begin{cases} \sin(4\pi h) + 5 & -2 \le h < -1 \\ 2h + 1 & -1 \le h \le 0 \end{cases}$$



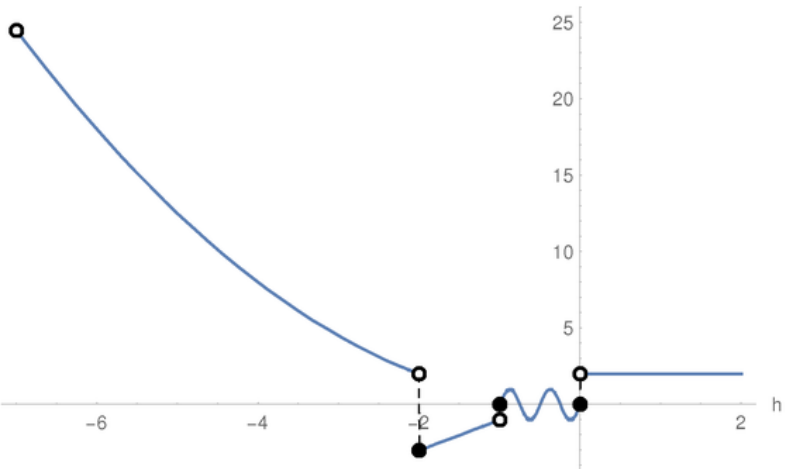

where two functions are juxtaposed together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} 2h + 1 & -2 \le h < -1 \\ \sin(4\pi h) + 5 & -1 \le h \le 0 \end{cases}$$




More and more complicated functions could be juxtaposed together:

$$\begin{cases} \frac{h^2}{2} & -7 < h < -2 \\ 2h + 1 & -2 \le h < -1 \\ \sin(4\pi h) & -1 \le h \le 0 \\ 2 & h > 0 \end{cases}$$




Solid disk corresponds to inclusion of the point or any of ⩽ ⩾ = operators

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Hollow disk corresponds to the exclusion or any of the < > operators

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