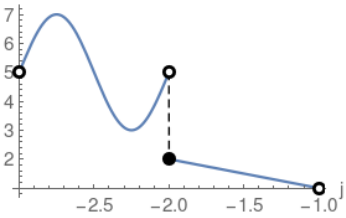
Piecewise Functions

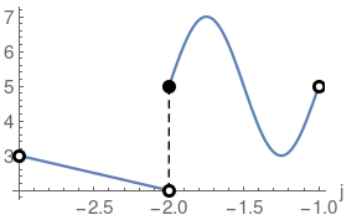
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the j-axis

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



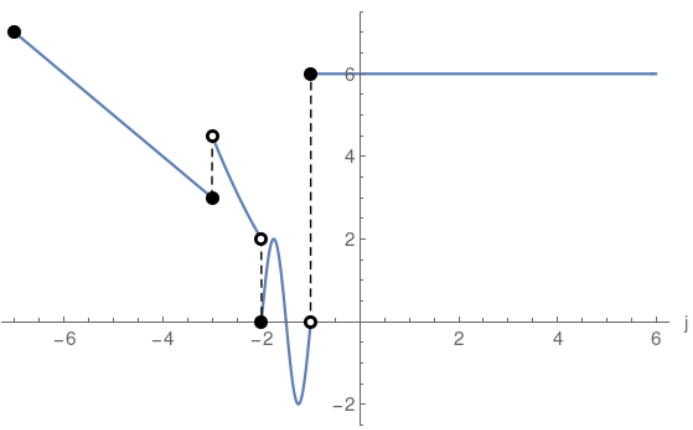
where two functions are juxtaposed together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be juxtaposed together:

$$\begin{cases} -j & -7 \le j \le -3 \\ \frac{j^2}{2} & -3 < j < -2 \\ 2\sin(2\pi j) & -2 \le j < -1 \\ 6 & j \ge -1 \end{cases}$$



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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