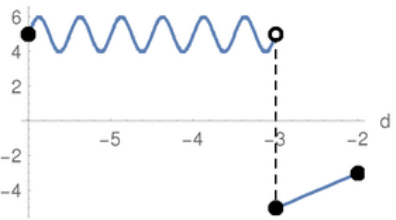
Piecewise Functions

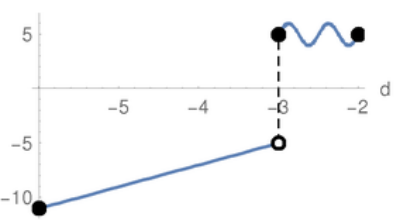
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the d-axis

$$\begin{cases} \sin(4\pi d) + 5 & -6 \le d < -3 \\ 2d + 1 & -3 \le d \le -2 \end{cases}$$



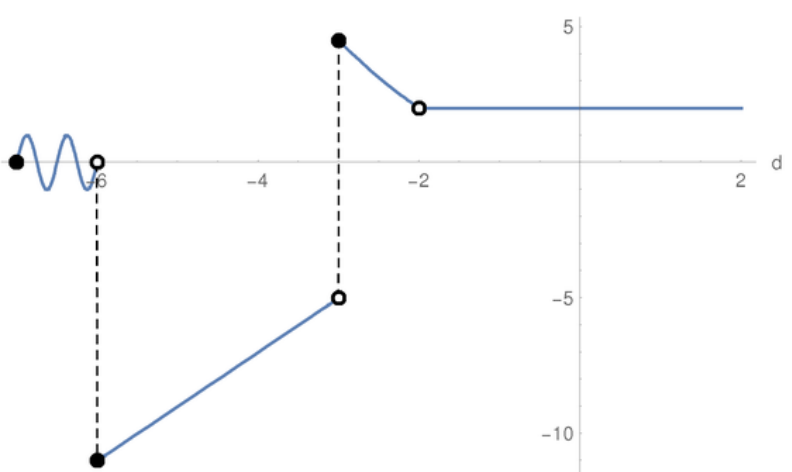
where two functions are stitched together, and for that matter could be pieced differently i.e. swapped:

$$\begin{cases} 2d + 1 & -6 \le d < -3 \\ \sin(4\pi d) + 5 & -3 \le d \le -2 \end{cases}$$



More and more complicated functions could be stitched together:

$$\begin{cases} \sin(4\pi d) & -7 \le d < -6 \\ 2d + 1 & -6 \le d < -3 \\ \frac{d^2}{2} & -3 \le d \le -2 \\ 2 & d > -2 \end{cases}$$



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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