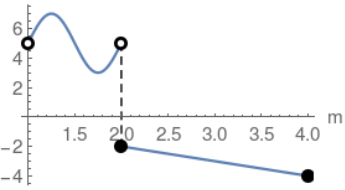
Piecewise Functions

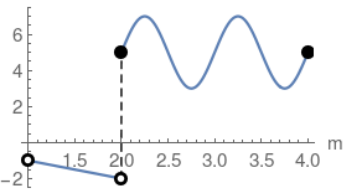
To define piecewise means that the function values and graphs are defined over a particular and generally limited section of the m-axis

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



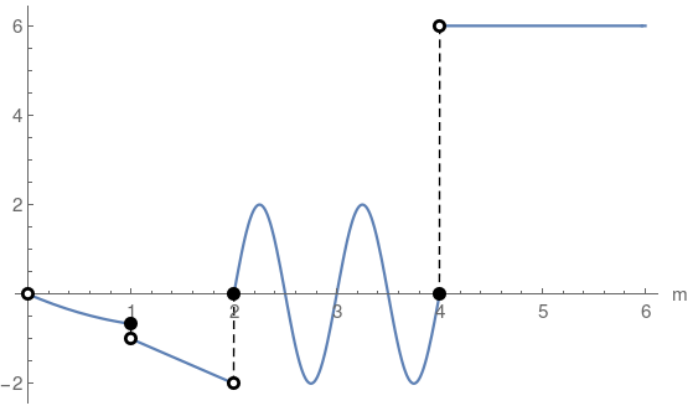
where two functions are glued together, and for that matter could be pieced differently i.e. swapped:

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



More and more complicated functions could be glued together:

$$\begin{cases} \frac{m^2}{3} - m & 0 < m \le 1 \\ -m & 1 < m < 2 \\ 2\sin(2\pi m) & 2 \le m \le 4 \\ 6 & m > 4 \end{cases}$$



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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