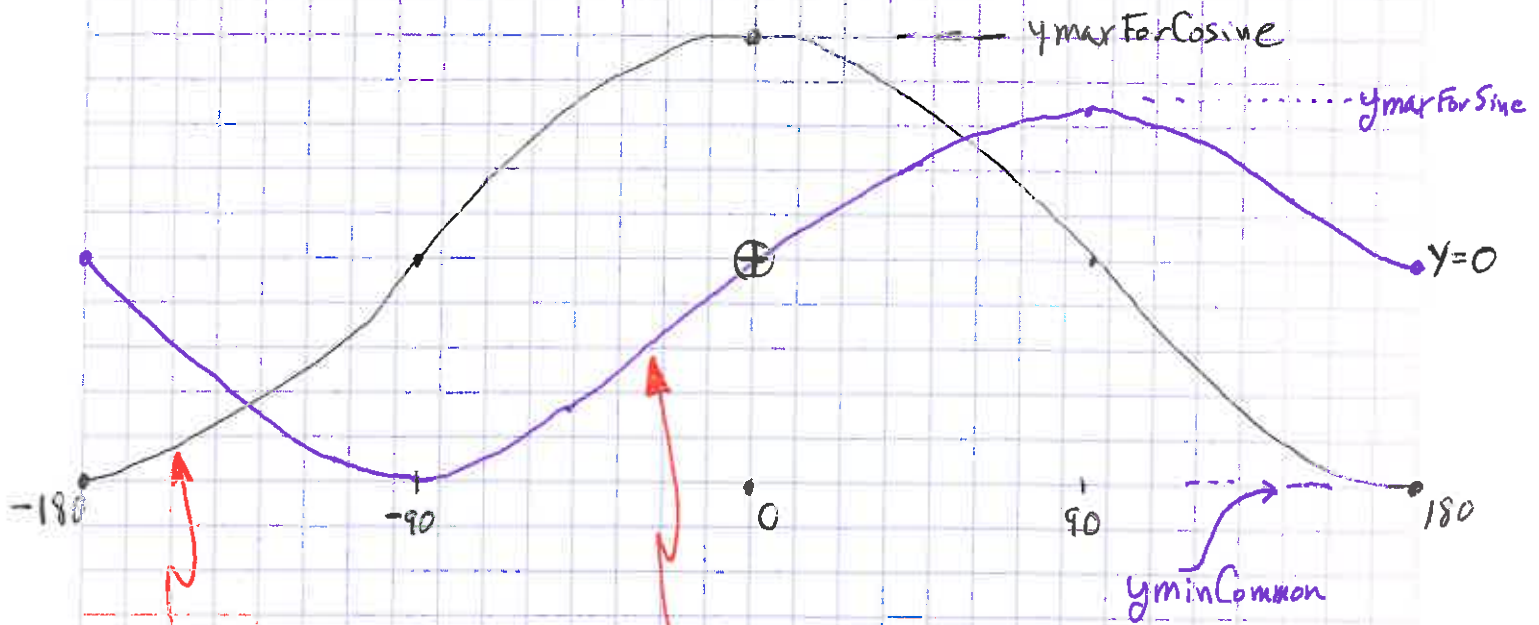


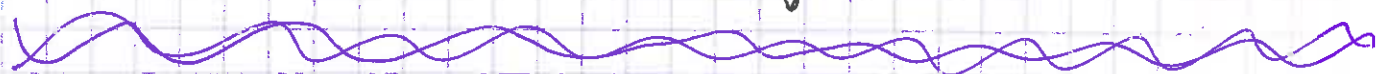
Mountain (xMin, xMax, yminCommon, ymaxForSine, ymaxForCosine,
bForCosine, cForCosine,
bForSine, cForSine, numSamplePointsPerCurve)



$$y = a_c \cos(b_c \theta + c_c) + d_c; \quad y = a_s \sin(b_s \theta + c_s) + d_s$$

We are given b and c for the two curves. We derive a and d as follows:

$$\left. \begin{array}{l} y_{\min} = d - a \\ y_{\max} = d + a \end{array} \right\} \Rightarrow \begin{array}{l} d = \frac{y_{\min} + y_{\max}}{2} \\ a = y_{\max} - d \end{array}$$



If I were to generalize or redo this, I would use only one of sine/cosine and have the constructor be something like:

Mountain (xMin, xMax, yminCommon, ymax[], b[], c[],
numCurves, numSamplePointsPerCurve)