(2/w)\*sqrt(log(2)/pi)\*exp(-4\*log(2)\*((v-v0)/w)\*\*2)

Now for Voigt:

Or starting from k=1:

https://mathworld.wolfram.com/JacobiThetaFunctions.html

Expand the cosh:

Write exp as sinh/cosh:

Combine sinh/cosh terms:

Cleanup:

=

=

Cleanup more:

Let’s continue with the cosh part;

Let’s continue with the cosh part: