Mathematica 7 Test Results

For Integration Problems Involving Hyperbolic Functions

Problems involving hyperbolic sines

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a\,\text{Sinh}[x]^2}},\ x,\ 2,\ 0\right\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[x]]\,\text{Sinh}[x]}{\sqrt{a\,\text{Sinh}[x]^2}}$$

$$\frac{\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\text{Sinh}[x]}{\sqrt{a\,\text{Sinh}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{3+5\,i\,\text{Sinh}[c+d\,x]},\ x,\ 1,\ 0\right\}$$

$$\frac{\text{ArcTan}\left[\frac{1}{4}\left(5\,i-3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]}{2\,d}$$

$$\frac{1}{8\,d}\left(2\,\text{ArcTan}\left[3\,\text{Coth}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+2\,\text{ArcTan}\left[3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-i\,(\text{Log}[-4+5\,\text{Cosh}[c+d\,x]]-\text{Log}[4+5\,\text{Cosh}[c+d\,x]])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(3+5\,i\,\text{Sinh}[c+d\,x])^2},\ x,\ 2,\ 0\right\}$$

$$-\frac{3\,\text{ArcTan}\left[\frac{1}{4}\left(5\,i-3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]}{32\,d}+\frac{5\,i\,\text{Cosh}[c+d\,x]}{16\,d\,(3+5\,i\,\text{Sinh}[c+d\,x])}$$

$$\frac{1}{384\,d}\left(-9\left(2\,\text{ArcTan}\left[3\,\text{Coth}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+2\,\text{ArcTan}\left[3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-i\,\text{Log}[-4+5\,\text{Cosh}[c+d\,x]]+i\,\text{Log}[4+5\,\text{Cosh}[c+d\,x]]\right)+40\left(\frac{1}{3\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}+\frac{3}{\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(3+5\,i\,\text{Sinh}[c+d\,x])^3},\ x,\ 3,\ 0\right\}$$

$$\frac{43\,\text{ArcTan}\left[\frac{1}{4}\left(5\,i-3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]}{1024\,d}+\frac{5\,i\,\text{Cosh}[c+d\,x]}{32\,d\,(3+5\,i\,\text{Sinh}[c+d\,x])^2}-\frac{45\,i\,\text{Cosh}[c+d\,x]}{512\,d\,(3+5\,i\,\text{Sinh}[c+d\,x])}$$

$$\frac{1}{4096\,d}\left(86\,\text{ArcTan}\left[3\,\text{Coth}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+86\,\text{ArcTan}\left[3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-43\,i\,\text{Log}[-4+5\,\text{Cosh}[c+d\,x]]+\right.$$

$$43\,i\,\text{Log}[4+5\,\text{Cosh}[c+d\,x]]-\frac{80\,i}{\left(3\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+\frac{80\,i}{\left(\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$\left.\left(-\frac{120}{3\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}-\frac{360}{\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(3+5\,i\,\text{Sinh}[c+d\,x])^4},\,x,\,4,\,0\right\}$$

$$-\frac{279\,\text{ArcTan}\left[\frac{1}{4}\left(5\,i-3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]}{16\,384\,d}+$$

$$\frac{5\,i\,\text{Cosh}[c+d\,x]}{48\,d\,(3+5\,i\,\text{Sinh}[c+d\,x])^3}-\frac{25\,i\,\text{Cosh}[c+d\,x]}{512\,d\,(3+5\,i\,\text{Sinh}[c+d\,x])^2}+\frac{995\,i\,\text{Cosh}[c+d\,x]}{24\,576\,d\,(3+5\,i\,\text{Sinh}[c+d\,x])}$$

$$\frac{1}{589\,824\,d}\left(-5022\,\text{ArcTan}\left[3\,\text{Coth}\left[\frac{1}{2}\,(c+d\,x)\right]\right]-5022\,\text{ArcTan}\left[3\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right]+2511\,i\,\text{Log}[-4+5\,\text{Cosh}[c+d\,x]]-\right.$$

$$2511\,i\,\text{Log}[4+5\,\text{Cosh}[c+d\,x]]+\frac{4640\,i}{\left(3\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}-\frac{1440\,i}{\left(\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^2}+$$

$$40\left(\frac{80}{\left(3\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{199}{3\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}+\right.$$

$$\left.\left.\frac{240}{\left(\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)^3}+\frac{597}{\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+3\,i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}\right)\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{5+3\,i\,\text{Sinh}[c+d\,x]},\,x,\,1,\,0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{1}{4}\left(3\,i-5\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]}{2\,d}$$

$$\frac{1}{8\,d}\left(-2\,i\,\text{ArcTan}\left[\frac{2\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]-\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}{\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]-2\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}\right]+2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+2\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}{2\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]}\right]-\right.$$

$$\left.\text{Log}[5\,\text{Cosh}[c+d\,x]-4\,\text{Sinh}[c+d\,x]]+\text{Log}[5\,\text{Cosh}[c+d\,x]+4\,\text{Sinh}[c+d\,x]]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(5+3\,i\,\text{Sinh}[c+d\,x])^2},\,x,\,2,\,0\right\}$$

$$-\frac{5\,\text{ArcTanh}\left[\frac{1}{4}\left(3\,i-5\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\right]}{32\,d}-\frac{3\,i\,\text{Cosh}[c+d\,x]}{16\,d\,(5+3\,i\,\text{Sinh}[c+d\,x])}$$

$$\frac{1}{640\,d\,(-5\,i+3\,\text{Sinh}[c+d\,x])}\left(-120\,\text{Cosh}[c+d\,x]+\left(24\,i-50\,i\,\text{ArcTan}\left[\frac{2\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}{\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-2\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}\right]+50\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+2\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}{2\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}\right]-25\,\text{Log}[5\,\text{Cosh}[c+d\,x]-4\,\text{Sinh}[c+d\,x]]+25\,\text{Log}[5\,\text{Cosh}[c+d\,x]+4\,\text{Sinh}[c+d\,x]]\right)(-5\,i+3\,\text{Sinh}[c+d\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(5+3\,i\,\text{Sinh}[c+d\,x])^3},\,x,\,3,\,0\right\}$$

$$-\frac{59\,\text{ArcTanh}\left[\frac{1}{4}\left(3\,i-5\,\text{Tanh}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]}{1024\,d}-\frac{3\,i\,\text{Cosh}[c+d\,x]}{32\,d\,(5+3\,i\,\text{Sinh}[c+d\,x])^2}-\frac{45\,i\,\text{Cosh}[c+d\,x]}{512\,d\,(5+3\,i\,\text{Sinh}[c+d\,x])}$$

$$\frac{1}{4096\,d}\left(-118\,i\,\text{ArcTan}\left[\frac{2\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}{\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-2\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}\right]+118\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+2\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}{2\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}\right]-59\,\text{Log}[5\,\text{Cosh}[c+d\,x]-4\,\text{Sinh}[c+d\,x]]+59\,\text{Log}[5\,\text{Cosh}[c+d\,x]+4\,\text{Sinh}[c+d\,x]]+\frac{48}{\left((1+2\,i)\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-(2+i)\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{48}{\left((2+i)\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+(1+2\,i)\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}-\frac{144\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\left(-3\,i\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+5\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)}{-5\,i+3\,\text{Sinh}[c+d\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(5+3\,i\,\text{Sinh}[c+d\,x])^4},\,x,\,4,\,0\right\}$$

$$-\frac{385\,\text{ArcTanh}\left[\frac{1}{4}\left(3\,i-5\,\text{Tanh}\left[\frac{1}{2}(c+d\,x)\right]\right)\right]}{16\,384\,d}-\frac{i\,\text{Cosh}[c+d\,x]}{16\,d\,(5+3\,i\,\text{Sinh}[c+d\,x])^3}-\frac{25\,i\,\text{Cosh}[c+d\,x]}{512\,d\,(5+3\,i\,\text{Sinh}[c+d\,x])^2}-\frac{311\,i\,\text{Cosh}[c+d\,x]}{8192\,d\,(5+3\,i\,\text{Sinh}[c+d\,x])}$$

$$\frac{1}{327\,680\,d}\left(-3850\,i\,\text{ArcTan}\left[\frac{2\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}{\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-2\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}\right]+3850\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+2\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}{2\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]}\right]-1925\,\text{Log}[5\,\text{Cosh}[c+d\,x]-4\,\text{Sinh}[c+d\,x]]+1925\,\text{Log}[5\,\text{Cosh}[c+d\,x]+4\,\text{Sinh}[c+d\,x]]+\frac{2656-192\,i}{\left((1+2\,i)\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]-(2+i)\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{2656+192\,i}{\left((2+i)\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+(1+2\,i)\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)^2}+\frac{1}{(-5\,i+3\,\text{Sinh}[c+d\,x])^3}2\,(-235\,150+166\,615\,\text{Cosh}[c+d\,x]+82\,530\,\text{Cosh}[2\,(c+d\,x)]-13\,995\,\text{Cosh}[3\,(c+d\,x)]-298\,563\,i\,\text{Sinh}[c+d\,x]+89\,364\,i\,\text{Sinh}[2\,(c+d\,x)]+8397\,i\,\text{Sinh}[3\,(c+d\,x)])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+i\,a\,\text{Sinh}[c+d\,x]},\,x,\,1,\,0\right\}$$

$$\frac{2\,i\,a\,\text{Cosh}[c+d\,x]}{d\sqrt{a+i\,a\,\text{Sinh}[c+d\,x]}}$$

$$\frac{2\left(i\,\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)\sqrt{a+i\,a\,\text{Sinh}[c+d\,x]}}{d\left(\text{Cosh}\left[\frac{1}{2}\,(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}\,(c+d\,x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x}{a+b\,\text{Sinh}[x]},\ x,\ 8,\ 0\right\}$$

$$\frac{x\,\text{Log}\left[1+\frac{b\,e^{x}}{a-\sqrt{a^2+b^2}}\right]}{\sqrt{a^2+b^2}}-\frac{x\,\text{Log}\left[1+\frac{b\,e^{x}}{a+\sqrt{a^2+b^2}}\right]}{\sqrt{a^2+b^2}}+\frac{\text{PolyLog}\left[2,\ -\frac{b\,e^{x}}{a-\sqrt{a^2+b^2}}\right]}{\sqrt{a^2+b^2}}-\frac{\text{PolyLog}\left[2,\ -\frac{b\,e^{x}}{a+\sqrt{a^2+b^2}}\right]}{\sqrt{a^2+b^2}}$$

$$-\frac{i\,\pi\,\text{ArcTanh}\left[\frac{-b+a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^2+b^2}}\right]}{\sqrt{a^2+b^2}}-$$

$$\frac{1}{\sqrt{-a^2-b^2}}\left(2\,\text{ArcCos}\left[-\frac{i\,a}{b}\right]\text{ArcTanh}\left[\frac{(a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]+(\pi-2\,i\,x)\,\text{ArcTanh}\left[\frac{(a-i\,b)\,\text{Tan}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]-\right.$$

$$\left(\text{ArcCos}\left[-\frac{i\,a}{b}\right]+2\,i\,\text{ArcTanh}\left[\frac{(a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]\right)\text{Log}\left[\frac{(i\,a+b)\left(a+i\left(b+\sqrt{-a^2-b^2}\right)\right)\left(-i+\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}{b\left(i\,a+b+i\sqrt{-a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}\right]-$$

$$\left(\text{ArcCos}\left[-\frac{i\,a}{b}\right]-2\,i\,\text{ArcTanh}\left[\frac{(a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]\right)\text{Log}\left[\frac{(i\,a+b)\left(i\,a-b+\sqrt{-a^2-b^2}\right)\left(i+\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}{b\left(a-i\,b+\sqrt{-a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}\right]+$$

$$\left(\text{ArcCos}\left[-\frac{i\,a}{b}\right]-2\,i\,\text{ArcTanh}\left[\frac{(a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]-2\,i\,\text{ArcTanh}\left[\frac{(a-i\,b)\,\text{Tan}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]\right)$$

$$\text{Log}\left[\frac{\left(\frac{1}{2}-\frac{i}{2}\right)\sqrt{-a^2-b^2}\,e^{-x/2}}{\sqrt{-i\,b}\,\sqrt{a+b\,\text{Sinh}[x]}}\right]+$$

$$\left(\text{ArcCos}\left[-\frac{i\,a}{b}\right]+2\,i\left(\text{ArcTanh}\left[\frac{(a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]+\text{ArcTanh}\left[\frac{(a-i\,b)\,\text{Tan}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]}{\sqrt{-a^2-b^2}}\right]\right)\right)$$

$$\text{Log}\left[\frac{\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{-a^2-b^2}\,e^{x/2}}{\sqrt{-i\,b}\,\sqrt{a+b\,\text{Sinh}[x]}}\right]+i\left(\text{PolyLog}\left[2,\ \frac{\left(i\,a+\sqrt{-a^2-b^2}\right)\left(i\,a+b-i\sqrt{-a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}{b\left(i\,a+b+i\sqrt{-a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}\right]-\right.$$

$$\left.\left.\text{PolyLog}\left[2,\ \frac{\left(a+i\sqrt{-a^2-b^2}\right)\left(-a+i\,b+\sqrt{-a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}{b\left(i\,a+b+i\sqrt{-a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+2\,i\,x)\right]\right)}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x^2}{1+i\,\text{Sinh}[x]},\ x,\ 6,\ 0\right\}$$

$$x^2 - 4\,x\,\text{Log}\left[1 + e^{\frac{i\pi}{2}+x}\right] - 4\,\text{PolyLog}\left[2, -e^{\frac{i\pi}{2}+x}\right] + i\,x^2\,\text{Tan}\left[\frac{\pi}{4} - \frac{i\,x}{2}\right]$$

$$\frac{1}{1 + i\,\text{Sinh}[x]}\,2\left(\text{Cosh}\left[\frac{x}{2}\right] + i\,\text{Sinh}\left[\frac{x}{2}\right]\right)$$

$$\left(\frac{1}{2\sqrt{2}}\left(-i\sqrt{2}\,\pi\,x + 2\,(-1)^{3/4}\,x^2 + 2\,i\sqrt{2}\,(\pi + 2\,i\,x)\,\text{Log}[1 - i\,e^{-x}] + 4\,i\sqrt{2}\,\pi\,\text{Log}[1 + e^{x}] - 4\,i\sqrt{2}\,\pi\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right] - 2\,i\sqrt{2}\,\pi\,\text{Log}\left[\text{Sin}\left[\frac{1}{4}\,(\pi + 2\,i\,x)\right]\right] + 4\sqrt{2}\,\text{PolyLog}[2, i\,e^{-x}]\right)\left(\text{Cosh}\left[\frac{x}{2}\right] + i\,\text{Sinh}\left[\frac{x}{2}\right]\right) + x^2\,\text{Sinh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x^2}{1 - i\,\text{Sinh}[x]}, x, 6, 0\right\}$$

$$-x^2 - 4\,x\,\text{Log}\left[1 + e^{\frac{i\pi}{2}-x}\right] + 4\,\text{PolyLog}\left[2, -e^{\frac{i\pi}{2}-x}\right] - i\,x^2\,\text{Tan}\left[\frac{\pi}{4} + \frac{i\,x}{2}\right]$$

$$i\left(-3\,\pi\,x - (1 - i)\,x^2 - 2\,\pi\,\text{Log}[1 + i\,e^{-x}] + 4\,i\,x\,\text{Log}[1 + i\,e^{-x}] + 4\,\pi\,\text{Log}[1 + e^{x}] + 2\,\pi\,\text{Log}\left[-\text{Cos}\left[\frac{1}{4}\,(\pi + 2\,i\,x)\right]\right] - 4\,\pi\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right] - 4\,i\,\text{PolyLog}[2, -i\,e^{-x}] - \frac{2\,i\,x^2\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right] - i\,\text{Sinh}\left[\frac{x}{2}\right]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x}{(a + b\,\text{Sinh}[c + d\,x])^2}, x, 12, 0\right\}$$

$$\frac{a\,x\,\text{Log}\left[1 + \frac{b\,e^{c+d\,x}}{a - \sqrt{a^2+b^2}}\right]}{\left(a^2 + b^2\right)^{3/2} d} - \frac{a\,x\,\text{Log}\left[1 + \frac{b\,e^{c+d\,x}}{a + \sqrt{a^2+b^2}}\right]}{\left(a^2 + b^2\right)^{3/2} d} + \frac{\text{Log}[a + b\,\text{Sinh}[c + d\,x]]}{\left(a^2 + b^2\right) d^2} + \frac{a\,\text{PolyLog}\left[2, -\frac{b\,e^{c+d\,x}}{a - \sqrt{a^2+b^2}}\right]}{\left(a^2 + b^2\right)^{3/2} d^2} - \frac{a\,\text{PolyLog}\left[2, -\frac{b\,e^{c+d\,x}}{a + \sqrt{a^2+b^2}}\right]}{\left(a^2 + b^2\right)^{3/2} d^2} - \frac{b\,x\,\text{Cosh}[c + d\,x]}{\left(a^2 + b^2\right) d\,(a + b\,\text{Sinh}[c + d\,x])}$$

$$\frac{1}{d^2}\left(\frac{1}{\left(\left(a^2 + b^2\right) e^{2c}\right)^{3/2}\left(-1 + e^{2c}\right)}\,e^{2c}\left(-2\,d\,e^{2c}\sqrt{\left(a^2 + b^2\right) e^{2c}}\,x - \sqrt{\left(a^2 + b^2\right) e^{2c}}\,\text{Log}\left[2\,a\,e^{c+d\,x} + b\left(-1 + e^{2\,(c+d\,x)}\right)\right] + e^{2c}\sqrt{\left(a^2 + b^2\right) e^{2c}}\,\text{Log}\left[2\,a\,e^{c+d\,x} + b\left(-1 + e^{2\,(c+d\,x)}\right)\right] - a\,d\,e^{c}\,x\,\text{Log}\left[1 + \frac{b\,e^{2c+d\,x}}{a\,e^{c} - \sqrt{\left(a^2 + b^2\right) e^{2c}}}\right] + a\,d\,e^{3c}\,x\,\text{Log}\left[1 + \frac{b\,e^{2c+d\,x}}{a\,e^{c} - \sqrt{\left(a^2 + b^2\right) e^{2c}}}\right] + a\,d\,e^{c}\,x\,\text{Log}\left[1 + \frac{b\,e^{2c+d\,x}}{a\,e^{c} + \sqrt{\left(a^2 + b^2\right) e^{2c}}}\right] - a\,d\,e^{3c}\,x\,\text{Log}\left[1 + \frac{b\,e^{2c+d\,x}}{a\,e^{c} + \sqrt{\left(a^2 + b^2\right) e^{2c}}}\right] + a\,e^{c}\left(-1 + e^{2c}\right)\text{PolyLog}\left[2, -\frac{b\,e^{2c+d\,x}}{a\,e^{c} - \sqrt{\left(a^2 + b^2\right) e^{2c}}}\right] - a\,e^{c}\left(-1 + e^{2c}\right)\text{PolyLog}\left[2, -\frac{b\,e^{2c+d\,x}}{a\,e^{c} + \sqrt{\left(a^2 + b^2\right) e^{2c}}}\right]\right) + \frac{d\,x\,\text{Csch}[c]\,(a\,\text{Cosh}[c] + b\,\text{Sinh}[d\,x])}{\left(a^2 + b^2\right)(a + b\,\text{Sinh}[c + d\,x])}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{e + f\,x}{(a + b\,\text{Sinh}[c + d\,x])^2}, x, 16, 0\right\}$$

$$-\frac{2\,a\,e\,\text{ArcTanh}\left[\frac{b-a\,\text{Tanh}\left[\frac{1}{2}\,(c+d\,x)\right]}{\sqrt{a^2+b^2}}\right]}{\left(a^2+b^2\right)^{3/2}\,d}+\frac{a\,f\,x\,\text{Log}\left[1+\frac{b\,e^{c+d\,x}}{a-\sqrt{a^2+b^2}}\right]}{\left(a^2+b^2\right)^{3/2}\,d}-\frac{a\,f\,x\,\text{Log}\left[1+\frac{b\,e^{c+d\,x}}{a+\sqrt{a^2+b^2}}\right]}{\left(a^2+b^2\right)^{3/2}\,d}+\frac{f\,\text{Log}\left[a+b\,\text{Sinh}\left[c+d\,x\right]\right]}{\left(a^2+b^2\right)\,d^2}+$$

$$\frac{a\,f\,\text{PolyLog}\left[2,\,-\frac{b\,e^{c+d\,x}}{a-\sqrt{a^2+b^2}}\right]}{\left(a^2+b^2\right)^{3/2}\,d^2}-\frac{a\,f\,\text{PolyLog}\left[2,\,-\frac{b\,e^{c+d\,x}}{a+\sqrt{a^2+b^2}}\right]}{\left(a^2+b^2\right)^{3/2}\,d^2}-\frac{b\,e\,\text{Cosh}\left[c+d\,x\right]}{\left(a^2+b^2\right)\,d\,\left(a+b\,\text{Sinh}\left[c+d\,x\right]\right)}-\frac{b\,f\,x\,\text{Cosh}\left[c+d\,x\right]}{\left(a^2+b^2\right)\,d\,\left(a+b\,\text{Sinh}\left[c+d\,x\right]\right)}$$

$$\frac{1}{d^2}\left(-\frac{1}{\left(-a^2-b^2\right)^{3/2}\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}\,\left(-1+e^{2\,c}\right)}\left(-2\,\sqrt{-a^2-b^2}\;d\,e^{2\,c}\,\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}\;f\,x-2\,a\,d\,e\,\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}\;\text{ArcTan}\left[\frac{a+b\,e^{c+d\,x}}{\sqrt{-a^2-b^2}}\right]+2\right.\right.$$
$$a\,d\,e\,e^{2\,c}\,\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}\;\text{ArcTan}\left[\frac{a+b\,e^{c+d\,x}}{\sqrt{-a^2-b^2}}\right]-\sqrt{-a^2-b^2}\;\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}\;f\,\text{Log}\left[2\,a\,e^{c+d\,x}+b\,\left(-1+e^{2\,(c+d\,x)}\right)\right]+$$
$$\sqrt{-a^2-b^2}\;e^{2\,c}\,\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}\;f\,\text{Log}\left[2\,a\,e^{c+d\,x}+b\,\left(-1+e^{2\,(c+d\,x)}\right)\right]-a\,\sqrt{-a^2-b^2}\;d\,e^{c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2\,c+d\,x}}{a\,e^{c}-\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}}\right]+$$
$$a\,\sqrt{-a^2-b^2}\;d\,e^{3\,c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2\,c+d\,x}}{a\,e^{c}-\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}}\right]+a\,\sqrt{-a^2-b^2}\;d\,e^{c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2\,c+d\,x}}{a\,e^{c}+\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}}\right]-$$
$$a\,\sqrt{-a^2-b^2}\;d\,e^{3\,c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2\,c+d\,x}}{a\,e^{c}+\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}}\right]+a\,\sqrt{-a^2-b^2}\;e^{c}\,\left(-1+e^{2\,c}\right)\,f\,\text{PolyLog}\left[2,\,-\frac{b\,e^{2\,c+d\,x}}{a\,e^{c}-\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}}\right]-$$
$$\left.\left.a\,\sqrt{-a^2-b^2}\;e^{c}\,\left(-1+e^{2\,c}\right)\,f\,\text{PolyLog}\left[2,\,-\frac{b\,e^{2\,c+d\,x}}{a\,e^{c}+\sqrt{\left(a^2+b^2\right)\,e^{2\,c}}}\right]\right)+\frac{d\,(e+f\,x)\,\text{Csch}\left[c\right]\,\left(a\,\text{Cosh}\left[c\right]+b\,\text{Sinh}\left[d\,x\right]\right)}{\left(a^2+b^2\right)\,\left(a+b\,\text{Sinh}\left[c+d\,x\right]\right)}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+i\,a\,\text{Sinh}\left[x\right]}\,,\,x,\,1,\,0\right\}$$

$$\frac{2\,i\,a\,\text{Cosh}\left[x\right]}{\sqrt{a+i\,a\,\text{Sinh}\left[x\right]}}$$

$$\frac{2\,\left(i\,\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]\right)\,\sqrt{a+i\,a\,\text{Sinh}\left[x\right]}}{\text{Cosh}\left[\frac{x}{2}\right]+i\,\text{Sinh}\left[\frac{x}{2}\right]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a-i\,a\,\text{Sinh}\left[x\right]}\,,\,x,\,1,\,0\right\}$$

$$-\frac{2\,i\,a\,\text{Cosh}\left[x\right]}{\sqrt{a-i\,a\,\text{Sinh}\left[x\right]}}$$

$$-\frac{2\,i\,\left(\text{Cosh}\left[\frac{x}{2}\right]+i\,\text{Sinh}\left[\frac{x}{2}\right]\right)\,\sqrt{a-i\,a\,\text{Sinh}\left[x\right]}}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+i\,a\,\text{Sinh}\left[c+d\,x\right]}\,,\,x,\,1,\,0\right\}$$

$$\frac{2\,i\,a\,\text{Cosh}[c+d\,x]}{d\sqrt{a+i\,a\,\text{Sinh}[c+d\,x]}}$$

$$\frac{2\left(i\,\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)\sqrt{a+i\,a\,\text{Sinh}[c+d\,x]}}{d\left(\text{Cosh}\left[\frac{1}{2}(c+d\,x)\right]+i\,\text{Sinh}\left[\frac{1}{2}(c+d\,x)\right]\right)}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x}{a+b\,\text{Sinh}[x]^2},\ x,\ 9,\ 0\right\}$$

$$\frac{x\,\text{Log}\left[1+\frac{b\,e^{2x}}{2a-2\sqrt{a}\,\sqrt{a-b}-b}\right]}{2\sqrt{a}\,\sqrt{a-b}}-\frac{x\,\text{Log}\left[1+\frac{b\,e^{2x}}{2a+2\sqrt{a}\,\sqrt{a-b}-b}\right]}{2\sqrt{a}\,\sqrt{a-b}}+\frac{\text{PolyLog}\left[2,-\frac{b\,e^{2x}}{2a-2\sqrt{a}\,\sqrt{a-b}-b}\right]}{4\sqrt{a}\,\sqrt{a-b}}-\frac{\text{PolyLog}\left[2,-\frac{b\,e^{2x}}{2a+2\sqrt{a}\,\sqrt{a-b}-b}\right]}{4\sqrt{a}\,\sqrt{a-b}}$$

$$-\frac{1}{4\sqrt{a\,(-a+b)}}\left(4\,x\,\text{ArcTan}\left[\frac{a\,\text{Coth}[x]}{\sqrt{-a\,(a-b)}}\right]-2\,i\,\text{ArcCos}\left[1-\frac{2\,a}{b}\right]\text{ArcTan}\left[\frac{\sqrt{-a^2+a\,b}\,\text{Tanh}[x]}{a}\right]+\right.$$

$$\left(\text{ArcCos}\left[1-\frac{2\,a}{b}\right]+2\left(\text{ArcTan}\left[\frac{a\,\text{Coth}[x]}{\sqrt{-a\,(a-b)}}\right]+\text{ArcTan}\left[\frac{\sqrt{-a^2+a\,b}\,\text{Tanh}[x]}{a}\right]\right)\right)\text{Log}\left[\frac{\sqrt{2}\,\sqrt{a\,(-a+b)}\,e^{-x}}{\sqrt{b}\,\sqrt{2\,a-b+b\,\text{Cosh}[2\,x]}}\right]+$$

$$\left(\text{ArcCos}\left[1-\frac{2\,a}{b}\right]-2\left(\text{ArcTan}\left[\frac{a\,\text{Coth}[x]}{\sqrt{-a\,(a-b)}}\right]+\text{ArcTan}\left[\frac{\sqrt{-a^2+a\,b}\,\text{Tanh}[x]}{a}\right]\right)\right)\text{Log}\left[\frac{\sqrt{2}\,\sqrt{a\,(-a+b)}\,e^{x}}{\sqrt{b}\,\sqrt{2\,a-b+b\,\text{Cosh}[2\,x]}}\right]-$$

$$\left(\text{ArcCos}\left[1-\frac{2\,a}{b}\right]+2\,\text{ArcTan}\left[\frac{\sqrt{-a^2+a\,b}\,\text{Tanh}[x]}{a}\right]\right)\left(\text{Log}[2]+\text{Log}\left[\frac{a\left(a+i\left(i\,b+\sqrt{a\,(-a+b)}\right)\right)(-1+\text{Tanh}[x])}{b\left(a+i\sqrt{a\,(-a+b)}\,\text{Tanh}[x]\right)}\right]\right)-$$

$$\left(\text{ArcCos}\left[1-\frac{2\,a}{b}\right]-2\,\text{ArcTan}\left[\frac{\sqrt{-a^2+a\,b}\,\text{Tanh}[x]}{a}\right]\right)\text{Log}\left[\frac{2\,a\left(i\,a-i\,b+\sqrt{a\,(-a+b)}\right)\text{Sech}[x]\,(\text{Cosh}[x]+\text{Sinh}[x])}{-i\,a\,b+b\sqrt{a\,(-a+b)}\,\text{Tanh}[x]}\right]+$$

$$i\left(-\text{PolyLog}\left[2,\frac{\left(-2\,a+b-2\,i\sqrt{a\,(-a+b)}\right)\left(i\,a+\sqrt{a\,(-a+b)}\,\text{Tanh}[x]\right)}{-i\,a\,b+b\sqrt{a\,(-a+b)}\,\text{Tanh}[x]}\right]+\right.$$

$$\left.\left.\text{PolyLog}\left[2,\frac{\left(-2\,a+b+2\,i\sqrt{a\,(-a+b)}\right)\left(i\,a+\sqrt{a\,(-a+b)}\,\text{Tanh}[x]\right)}{-i\,a\,b+b\sqrt{a\,(-a+b)}\,\text{Tanh}[x]}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Sinh}[x]^3},\ x,\ 7,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{b^{1/3}-a^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}+b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}+b^{2/3}}}-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{2/3}\,b^{1/3}-a^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}-(-1)^{1/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}-(-1)^{1/3}\,b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{1/3}\,b^{1/3}+a^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}+(-1)^{2/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}+(-1)^{2/3}\,b^{2/3}}}$$

$$\frac{2}{3}\,\text{RootSum}\left[-b+3\,b\,\#1^2+8\,a\,\#1^3-3\,b\,\#1^4+b\,\#1^6\,\&,\ \frac{x\,\#1+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1}{b+4\,a\,\#1-2\,b\,\#1^2+b\,\#1^4}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Sinh}[x]^5},\ x,\ 11,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{b^{1/5}-a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+b^{2/5}}}-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{2/5}\,b^{1/5}-a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{4/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{4/5}\,b^{2/5}}}-$$

$$\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{4/5}\,b^{1/5}-a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{3/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{3/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{1/5}\,b^{1/5}+a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{2/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{2/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{3/5}\,b^{1/5}+a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{1/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{1/5}\,b^{2/5}}}$$

$$\frac{8}{5}\,\text{RootSum}\left[-b+5\,b\,\#1^2-10\,b\,\#1^4+32\,a\,\#1^5+10\,b\,\#1^6-5\,b\,\#1^8+b\,\#1^{10}\&,\right.$$
$$\left.\frac{x\,\#1^3+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^3}{b-4\,b\,\#1^2+16\,a\,\#1^3+6\,b\,\#1^4-4\,b\,\#1^6+b\,\#1^8}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Sinh}[x]^6},\,x,\,10,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Coth}[x]}{\sqrt{a^{1/3}-b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}-b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Coth}[x]}{\sqrt{a^{1/3}+(-1)^{1/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}+(-1)^{1/3}\,b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Coth}[x]}{\sqrt{a^{1/3}-(-1)^{2/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}-(-1)^{2/3}\,b^{1/3}}}$$

$$\frac{16}{3}\,\text{RootSum}\left[b-6\,b\,\#1+15\,b\,\#1^2+64\,a\,\#1^3-20\,b\,\#1^3+15\,b\,\#1^4-6\,b\,\#1^5+b\,\#1^6\&,\right.$$
$$\left.\frac{x\,\#1^2+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\#1-\text{Sinh}[x]\,\#1]\,\#1^2}{-b+5\,b\,\#1+32\,a\,\#1^2-10\,b\,\#1^2+10\,b\,\#1^3-5\,b\,\#1^4+b\,\#1^5}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Sinh}[x]^8},\,x,\,13,\,0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Coth}[x]}{\sqrt{(-a)^{1/4}-b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}-b^{1/4}}}-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Coth}[x]}{\sqrt{(-a)^{1/4}-i\,b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}-i\,b^{1/4}}}-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Coth}[x]}{\sqrt{(-a)^{1/4}+i\,b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}+i\,b^{1/4}}}-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Coth}[x]}{\sqrt{(-a)^{1/4}+b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}+b^{1/4}}}$$

$$16\,\text{RootSum}\left[b-8\,b\,\#1+28\,b\,\#1^2-56\,b\,\#1^3+256\,a\,\#1^4+70\,b\,\#1^4-56\,b\,\#1^5+28\,b\,\#1^6-8\,b\,\#1^7+b\,\#1^8\&,\right.$$
$$\left.\frac{x\,\#1^3+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\#1-\text{Sinh}[x]\,\#1]\,\#1^3}{-b+7\,b\,\#1-21\,b\,\#1^2+128\,a\,\#1^3+35\,b\,\#1^3-35\,b\,\#1^4+21\,b\,\#1^5-7\,b\,\#1^6+b\,\#1^7}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a-b\,\text{Sinh}[x]^3},\,x,\,7,\,0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{1/3}\,b^{1/3}-a^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}+(-1)^{2/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}+(-1)^{2/3}\,b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{b^{1/3}+a^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}+b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}+b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{2/3}\,b^{1/3}+a^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}-(-1)^{1/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}-(-1)^{1/3}\,b^{2/3}}}$$

$$-\frac{2}{3}\,\text{RootSum}\left[-b+3\,b\,\#1^2-8\,a\,\#1^3-3\,b\,\#1^4+b\,\#1^6\&,\,\frac{x\,\#1+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1}{b-4\,a\,\#1-2\,b\,\#1^2+b\,\#1^4}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\left(a-b\,\text{Sinh}[x]\right)^5},\ x,\ 11,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{1/5}\,b^{1/5}-a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{2/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{2/5}\,b^{2/5}}}-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{3/5}\,b^{1/5}-a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{1/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{1/5}\,b^{2/5}}}+$$

$$\frac{2\,\text{ArcTanh}\left[\frac{b^{1/5}+a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{2/5}\,b^{1/5}+a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{4/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{4/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{4/5}\,b^{1/5}+a^{1/5}\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{3/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{3/5}\,b^{2/5}}}$$

$$-\frac{8}{5}\,\text{RootSum}\left[-b+5\,b\,\text{\#}1^2-10\,b\,\text{\#}1^4-32\,a\,\text{\#}1^5+10\,b\,\text{\#}1^6-5\,b\,\text{\#}1^8+b\,\text{\#}1^{10}\,\&,\ \frac{x\,\text{\#}1^3+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\text{\#}1-\text{Sinh}\left[\frac{x}{2}\right]\text{\#}1\right]\text{\#}1^3}{b-4\,b\,\text{\#}1^2-16\,a\,\text{\#}1^3+6\,b\,\text{\#}1^4-4\,b\,\text{\#}1^6+b\,\text{\#}1^8}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\left(a-b\,\text{Sinh}[x]\right)^6},\ x,\ 10,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Coth}[x]}{\sqrt{a^{1/3}+b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}+b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Coth}[x]}{\sqrt{a^{1/3}-(-1)^{1/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}-(-1)^{1/3}\,b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Coth}[x]}{\sqrt{a^{1/3}+(-1)^{2/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}+(-1)^{2/3}\,b^{1/3}}}$$

$$-\frac{16}{3}\,\text{RootSum}\left[b-6\,b\,\text{\#}1+15\,b\,\text{\#}1^2-64\,a\,\text{\#}1^3-20\,b\,\text{\#}1^3+15\,b\,\text{\#}1^4-6\,b\,\text{\#}1^5+b\,\text{\#}1^6\,\&,\ \frac{x\,\text{\#}1^2+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\text{\#}1-\text{Sinh}[x]\,\text{\#}1]\,\text{\#}1^2}{-b+5\,b\,\text{\#}1-32\,a\,\text{\#}1^2-10\,b\,\text{\#}1^2+10\,b\,\text{\#}1^3-5\,b\,\text{\#}1^4+b\,\text{\#}1^5}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\left(a-b\,\text{Sinh}[x]\right)^8},\ x,\ 13,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Coth}[x]}{\sqrt{a^{1/4}-b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}-b^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Coth}[x]}{\sqrt{a^{1/4}-i\,b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}-i\,b^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Coth}[x]}{\sqrt{a^{1/4}+i\,b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}+i\,b^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Coth}[x]}{\sqrt{a^{1/4}+b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}+b^{1/4}}}$$

$$-16\,\text{RootSum}\left[b-8\,b\,\text{\#}1+28\,b\,\text{\#}1^2-56\,b\,\text{\#}1^3-256\,a\,\text{\#}1^4+70\,b\,\text{\#}1^4-56\,b\,\text{\#}1^5+28\,b\,\text{\#}1^6-8\,b\,\text{\#}1^7+b\,\text{\#}1^8\,\&,\ \frac{x\,\text{\#}1^3+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\text{\#}1-\text{Sinh}[x]\,\text{\#}1]\,\text{\#}1^3}{-b+7\,b\,\text{\#}1-21\,b\,\text{\#}1^2-128\,a\,\text{\#}1^3+35\,b\,\text{\#}1^3-35\,b\,\text{\#}1^4+21\,b\,\text{\#}1^5-7\,b\,\text{\#}1^6+b\,\text{\#}1^7}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\left(1+\text{Sinh}[x]\right)^5},\ x,\ 8,\ 0\right\}$$

$$-\frac{1}{5}\sqrt{2}\,\text{ArcTanh}\left[\frac{1-\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2}}\right]-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{2/5}-\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{4/5}}}\right]}{5\sqrt{1+(-1)^{4/5}}}-$$

$$\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{4/5}-\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{3/5}}}\right]}{5\sqrt{1-(-1)^{3/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{1/5}+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{2/5}}}\right]}{5\sqrt{1+(-1)^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{3/5}+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{1/5}}}\right]}{5\sqrt{1-(-1)^{1/5}}}$$

$$\frac{1}{10}\left(2\sqrt{2}\ \text{ArcTanh}\left[\frac{-1+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2}}\right]-\text{RootSum}\left[1+2\,\#1+2\,\#1^3+14\,\#1^4-2\,\#1^5-2\,\#1^7+\#1^8\ \&,\right.\right.$$
$$\frac{1}{1+3\,\#1^2+28\,\#1^3-5\,\#1^4-7\,\#1^6+4\,\#1^7}\left(-x-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]-\right.$$
$$4\,x\,\#1-8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1-9\,x\,\#1^2-$$
$$18\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2-24\,x\,\#1^3-$$
$$48\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^3+9\,x\,\#1^4+$$
$$18\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4-4\,x\,\#1^5-$$
$$8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^5+x\,\#1^6+$$
$$\left.\left.2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{1+\text{Sinh}[x]^8},\ x,\ 13,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{1-(-1)^{1/4}}}\right]}{4\sqrt{1-(-1)^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{1+(-1)^{1/4}}}\right]}{4\sqrt{1+(-1)^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{1-(-1)^{3/4}}}\right]}{4\sqrt{1-(-1)^{3/4}}}+\frac{\text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{1+(-1)^{3/4}}}\right]}{4\sqrt{1+(-1)^{3/4}}}$$

$$16\,\text{RootSum}\left[1-8\,\#1+28\,\#1^2-56\,\#1^3+326\,\#1^4-56\,\#1^5+28\,\#1^6-8\,\#1^7+\#1^8\ \&,\right.$$
$$\left.\frac{x\,\#1^3+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\#1-\text{Sinh}[x]\,\#1]\,\#1^3}{-1+7\,\#1-21\,\#1^2+163\,\#1^3-35\,\#1^4+21\,\#1^5-7\,\#1^6+\#1^7}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{1-\text{Sinh}[x]^5},\ x,\ 8,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{1/5}-\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{2/5}}}\right]}{5\sqrt{1+(-1)^{2/5}}}-\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{3/5}-\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{1/5}}}\right]}{5\sqrt{1-(-1)^{1/5}}}+$$

$$\frac{1}{5}\sqrt{2}\ \text{ArcTanh}\left[\frac{1+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2}}\right]+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{2/5}+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{4/5}}}\right]}{5\sqrt{1+(-1)^{4/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{(-1)^{4/5}+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{3/5}}}\right]}{5\sqrt{1-(-1)^{3/5}}}$$

$$\frac{1}{10}\left(2\sqrt{2}\ \text{ArcTanh}\left[\frac{1+\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2}}\right]+\text{RootSum}\left[1-2\,\#1-2\,\#1^3+14\,\#1^4+2\,\#1^5+2\,\#1^7+\#1^8\ \&,\right.\right.$$
$$\frac{1}{-1-3\,\#1^2+28\,\#1^3+5\,\#1^4+7\,\#1^6+4\,\#1^7}\left(-x-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+\right.$$
$$4\,x\,\#1+8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1-9\,x\,\#1^2-$$
$$18\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2+24\,x\,\#1^3+$$
$$48\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^3+9\,x\,\#1^4+$$
$$18\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+4\,x\,\#1^5+$$
$$8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^5+x\,\#1^6+$$
$$\left.\left.2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Sinh}\left[\frac{a+b\,x}{c+d\,x}\right],\ x,\ 5,\ 0\right\}$$

$$\frac{(b\,c-a\,d)\,\text{Cosh}\left[\frac{b}{d}\right]\text{CoshIntegral}\left[-\frac{b\,c-a\,d}{d\,(c+d\,x)}\right]}{d^2}+\frac{(c+d\,x)\,\text{Sinh}\left[\frac{a+b\,x}{c+d\,x}\right]}{d}+\frac{(b\,c-a\,d)\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{a}{c+d\,x}-\frac{b\,c}{d\,(c+d\,x)}\right]}{d^2}$$

$$\frac{1}{2\,d^2}\left((b\,c-a\,d)\,\text{CoshIntegral}\left[\frac{b\,c-a\,d}{c\,d+d^2\,x}\right]\left(\text{Cosh}\left[\frac{b}{d}\right]-\text{Sinh}\left[\frac{b}{d}\right]\right)+(b\,c-a\,d)\,\text{CoshIntegral}\left[\frac{-b\,c+a\,d}{d\,(c+d\,x)}\right]\left(\text{Cosh}\left[\frac{b}{d}\right]+\text{Sinh}\left[\frac{b}{d}\right]\right)+\right.$$
$$2\,c\,d\,\text{Sinh}\left[\frac{a+b\,x}{c+d\,x}\right]+2\,d^2\,x\,\text{Sinh}\left[\frac{a+b\,x}{c+d\,x}\right]+b\,c\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c+a\,d}{d\,(c+d\,x)}\right]-a\,d\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c+a\,d}{d\,(c+d\,x)}\right]+$$
$$b\,c\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c+a\,d}{d\,(c+d\,x)}\right]-a\,d\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c+a\,d}{d\,(c+d\,x)}\right]+b\,c\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c-a\,d}{c\,d+d^2\,x}\right]-$$
$$\left.a\,d\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c-a\,d}{c\,d+d^2\,x}\right]-b\,c\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c-a\,d}{c\,d+d^2\,x}\right]+a\,d\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c-a\,d}{c\,d+d^2\,x}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x^2}{\text{Sinh}[x]^{3/2}}-x^2\sqrt{\text{Sinh}[x]},\ x,\ 4,\ 0\right\}$$

$$-\frac{2\,x^2\,\text{Cosh}[x]}{\sqrt{\text{Sinh}[x]}}+8\,x\sqrt{\text{Sinh}[x]}-\frac{16\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{i\,x}{2},\ 2\right]\sqrt{\text{Sinh}[x]}}{\sqrt{i\,\text{Sinh}[x]}}$$

$$-\frac{1}{\sqrt{\text{Sinh}[x]}}2\left(x^2\,\text{Cosh}[x]-4\,(-2+x)\,\text{Sinh}[x]-\right.$$
$$\left.8\sqrt{2}\ \text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ \text{Cosh}[2\,x]+\text{Sinh}[2\,x]\right](-\text{Cosh}[x]+\text{Sinh}[x])\sqrt{-\text{Sinh}[x]\,(\text{Cosh}[x]+\text{Sinh}[x])}\right)$$

Problems involving hyperbolic cosines

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{5+3\cosh[c+dx]},\ x,\ 1,\ 0\right\}$$

$$\frac{\operatorname{ArcTanh}\left[\frac{1}{2}\tanh\left[\frac{1}{2}(c+dx)\right]\right]}{2d}$$

$$\frac{-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]+\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]}{4d}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(5+3\cosh[c+dx])^2},\ x,\ 2,\ 0\right\}$$

$$\frac{5\operatorname{ArcTanh}\left[\frac{1}{2}\tanh\left[\frac{1}{2}(c+dx)\right]\right]}{32d}-\frac{3\sinh[c+dx]}{16d(5+3\cosh[c+dx])}$$

$$\frac{1}{64d(5+3\cosh[c+dx])}\left(-15\cosh[c+dx]\left(\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]\right)+25\left(-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]+\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]\right)-12\sinh[c+dx]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(5+3\cosh[c+dx])^3},\ x,\ 3,\ 0\right\}$$

$$\frac{59\operatorname{ArcTanh}\left[\frac{1}{2}\tanh\left[\frac{1}{2}(c+dx)\right]\right]}{1024d}-\frac{3\sinh[c+dx]}{32d(5+3\cosh[c+dx])^2}-\frac{45\sinh[c+dx]}{512d(5+3\cosh[c+dx])}$$

$$-\frac{1}{4096d(5+3\cosh[c+dx])^2}\left(3481\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]+3540\cosh[c+dx]\left(\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]\right)+531\cosh[2(c+dx)]\left(\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]\right)-3481\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]+2184\sinh[c+dx]+540\sinh[2(c+dx)]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(5+3\cosh[c+dx])^4},\ x,\ 4,\ 0\right\}$$

$$\frac{385\operatorname{ArcTanh}\left[\frac{1}{2}\tanh\left[\frac{1}{2}(c+dx)\right]\right]}{16\,384d}-\frac{\sinh[c+dx]}{16d(5+3\cosh[c+dx])^3}-\frac{25\sinh[c+dx]}{512d(5+3\cosh[c+dx])^2}-\frac{311\sinh[c+dx]}{8192d(5+3\cosh[c+dx])}$$

$$-\frac{1}{131\,072\,d\,(5+3\cosh[c+dx])^3}\left(296\,450\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]+10\,395\cosh[3(c+dx)]\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]+377\,685\cosh[c+dx]\left(\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]\right)+103\,950\cosh[2(c+dx)]\left(\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]-\sinh\left[\frac{1}{2}(c+dx)\right]\right]-\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]\right)-296\,450\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]-10\,395\cosh[3(c+dx)]\log\left[2\cosh\left[\frac{1}{2}(c+dx)\right]+\sinh\left[\frac{1}{2}(c+dx)\right]\right]+175\,788\sinh[c+dx]+84\,240\sinh[2(c+dx)]+11\,196\sinh[3(c+dx)]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x}{a+b\cosh[c+dx]},\,x,\,8,\,0\right\}$$

$$\frac{x\log\left[1+\frac{b\,e^{c+dx}}{a-\sqrt{a^2-b^2}}\right]}{\sqrt{a^2-b^2}\,d}-\frac{x\log\left[1+\frac{b\,e^{c+dx}}{a+\sqrt{a^2-b^2}}\right]}{\sqrt{a^2-b^2}\,d}+\frac{\text{PolyLog}\left[2,-\frac{b\,e^{c+dx}}{a-\sqrt{a^2-b^2}}\right]}{\sqrt{a^2-b^2}\,d^2}-\frac{\text{PolyLog}\left[2,-\frac{b\,e^{c+dx}}{a+\sqrt{a^2-b^2}}\right]}{\sqrt{a^2-b^2}\,d^2}$$

$$-\frac{1}{\sqrt{-a^2+b^2}\,d^2}\Bigg(2(c+dx)\,\text{ArcTan}\left[\frac{(a+b)\coth\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]-2\left(c-i\,\text{ArcCos}\left[-\frac{a}{b}\right]\right)\text{ArcTan}\left[\frac{(a-b)\tanh\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]+\left(\text{ArcCos}\left[-\frac{a}{b}\right]+2\,\text{ArcTan}\left[\frac{(a+b)\coth\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]-2\,\text{ArcTan}\left[\frac{(a-b)\tanh\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]\right)\log\left[\frac{\sqrt{-a^2+b^2}\;e^{-\frac{c}{2}-\frac{dx}{2}}}{\sqrt{2}\,\sqrt{b}\,\sqrt{a+b\cosh[c+dx]}}\right]+\left(\text{ArcCos}\left[-\frac{a}{b}\right]-2\,\text{ArcTan}\left[\frac{(a+b)\coth\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]+2\,\text{ArcTan}\left[\frac{(a-b)\tanh\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]\right)\log\left[\frac{\sqrt{-a^2+b^2}\;e^{\frac{1}{2}(c+dx)}}{\sqrt{2}\,\sqrt{b}\,\sqrt{a+b\cosh[c+dx]}}\right]-\left(\text{ArcCos}\left[-\frac{a}{b}\right]-2\,\text{ArcTan}\left[\frac{(a-b)\tanh\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]\right)\log\left[\frac{(a+b)\left(a-b+i\sqrt{-a^2+b^2}\right)\left(-1+\tanh\left[\frac{1}{2}(c+dx)\right]\right)}{b\left(a+b+i\sqrt{-a^2+b^2}\,\tanh\left[\frac{1}{2}(c+dx)\right]\right)}\right]-\left(\text{ArcCos}\left[-\frac{a}{b}\right]+2\,\text{ArcTan}\left[\frac{(a-b)\tanh\left[\frac{1}{2}(c+dx)\right]}{\sqrt{-a^2+b^2}}\right]\right)\log\left[\frac{(a+b)\left(-a+b+i\sqrt{-a^2+b^2}\right)\left(1+\tanh\left[\frac{1}{2}(c+dx)\right]\right)}{b\left(a+b+i\sqrt{-a^2+b^2}\,\tanh\left[\frac{1}{2}(c+dx)\right]\right)}\right]+i\left(\text{PolyLog}\left[2,\frac{\left(a-i\sqrt{-a^2+b^2}\right)\left(a+b-i\sqrt{-a^2+b^2}\,\tanh\left[\frac{1}{2}(c+dx)\right]\right)}{b\left(a+b+i\sqrt{-a^2+b^2}\,\tanh\left[\frac{1}{2}(c+dx)\right]\right)}\right]-\text{PolyLog}\left[2,\frac{\left(a+i\sqrt{-a^2+b^2}\right)\left(a+b-i\sqrt{-a^2+b^2}\,\tanh\left[\frac{1}{2}(c+dx)\right]\right)}{b\left(a+b+i\sqrt{-a^2+b^2}\,\tanh\left[\frac{1}{2}(c+dx)\right]\right)}\right]\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{e+f\,x}{(a+b\,\text{Cosh}[c+d\,x])^2},\ x,\ 16,\ 0\right\}$$

$$\frac{2\,a\,e\,\text{ArcTanh}\left[\frac{(a-b)\,\text{Tanh}\left[\frac{1}{2}(c+d\,x)\right]}{\sqrt{a^2-b^2}}\right]}{\left(a^2-b^2\right)^{3/2}d}+\frac{a\,f\,x\,\text{Log}\left[1+\frac{b\,e^{c+d\,x}}{a-\sqrt{a^2-b^2}}\right]}{\left(a^2-b^2\right)^{3/2}d}-\frac{a\,f\,x\,\text{Log}\left[1+\frac{b\,e^{c+d\,x}}{a+\sqrt{a^2-b^2}}\right]}{\left(a^2-b^2\right)^{3/2}d}+\frac{f\,\text{Log}[a+b\,\text{Cosh}[c+d\,x]]}{\left(a^2-b^2\right)d^2}+$$

$$\frac{a\,f\,\text{PolyLog}\left[2,-\frac{b\,e^{c+d\,x}}{a-\sqrt{a^2-b^2}}\right]}{\left(a^2-b^2\right)^{3/2}d^2}-\frac{a\,f\,\text{PolyLog}\left[2,-\frac{b\,e^{c+d\,x}}{a+\sqrt{a^2-b^2}}\right]}{\left(a^2-b^2\right)^{3/2}d^2}-\frac{b\,e\,\text{Sinh}[c+d\,x]}{\left(a^2-b^2\right)d\,(a+b\,\text{Cosh}[c+d\,x])}-\frac{b\,f\,x\,\text{Sinh}[c+d\,x]}{\left(a^2-b^2\right)d\,(a+b\,\text{Cosh}[c+d\,x])}$$

$$\frac{1}{d^2}\left(-\frac{1}{\left(-a^2+b^2\right)^{3/2}\sqrt{\left(a^2-b^2\right)e^{2c}}\,\left(1+e^{2c}\right)}\left(-2\sqrt{-a^2+b^2}\;d\,e^{2c}\sqrt{\left(a^2-b^2\right)e^{2c}}\;f\,x+2\,a\,d\,e\sqrt{\left(a^2-b^2\right)e^{2c}}\;\text{ArcTan}\left[\frac{a+b\,e^{c+d\,x}}{\sqrt{-a^2+b^2}}\right]+2\,a\right.\right.$$
$$d\,e\,e^{2c}\sqrt{\left(a^2-b^2\right)e^{2c}}\;\text{ArcTan}\left[\frac{a+b\,e^{c+d\,x}}{\sqrt{-a^2+b^2}}\right]+\sqrt{-a^2+b^2}\;\sqrt{\left(a^2-b^2\right)e^{2c}}\;f\,\text{Log}\left[b+2\,a\,e^{c+d\,x}+b\,e^{2(c+d\,x)}\right]+$$
$$\sqrt{-a^2+b^2}\;e^{2c}\sqrt{\left(a^2-b^2\right)e^{2c}}\;f\,\text{Log}\left[b+2\,a\,e^{c+d\,x}+b\,e^{2(c+d\,x)}\right]+a\sqrt{-a^2+b^2}\;d\,e^{c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2c+d\,x}}{a\,e^{c}-\sqrt{\left(a^2-b^2\right)e^{2c}}}\right]+$$
$$a\sqrt{-a^2+b^2}\;d\,e^{3c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2c+d\,x}}{a\,e^{c}-\sqrt{\left(a^2-b^2\right)e^{2c}}}\right]-a\sqrt{-a^2+b^2}\;d\,e^{c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2c+d\,x}}{a\,e^{c}+\sqrt{\left(a^2-b^2\right)e^{2c}}}\right]-$$
$$a\sqrt{-a^2+b^2}\;d\,e^{3c}\,f\,x\,\text{Log}\left[1+\frac{b\,e^{2c+d\,x}}{a\,e^{c}+\sqrt{\left(a^2-b^2\right)e^{2c}}}\right]+a\sqrt{-a^2+b^2}\;e^{c}\left(1+e^{2c}\right)f\,\text{PolyLog}\left[2,-\frac{b\,e^{2c+d\,x}}{a\,e^{c}-\sqrt{\left(a^2-b^2\right)e^{2c}}}\right]-$$
$$\left.\left.a\sqrt{-a^2+b^2}\;e^{c}\left(1+e^{2c}\right)f\,\text{PolyLog}\left[2,-\frac{b\,e^{2c+d\,x}}{a\,e^{c}+\sqrt{\left(a^2-b^2\right)e^{2c}}}\right]\right)+\frac{d\,(e+f\,x)\,\text{Sech}[c]\,(a\,\text{Sinh}[c]-b\,\text{Sinh}[d\,x])}{\left(a^2-b^2\right)(a+b\,\text{Cosh}[c+d\,x])}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1-\text{Cosh}[x]^2}},\ x,\ 3,\ 0\right\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[x]]\,\text{Sinh}[x]}{\sqrt{-\text{Sinh}[x]^2}}$$

$$\frac{\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\text{Sinh}[x]}{\sqrt{-\text{Sinh}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{-1+\text{Cosh}[x]^2}},\ x,\ 3,\ 0\right\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[x]]\,\text{Sinh}[x]}{\sqrt{\text{Sinh}[x]^2}}$$

$$\frac{\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\,\text{Sinh}[x]}{\sqrt{\text{Sinh}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x}{a+b\,\text{Cosh}[x]^2},\ x,\ 9,\ 0\right\}$$

$$\frac{x\,\text{Log}\left[1+\frac{b\,e^{2x}}{2\,a+b-2\sqrt{a}\,\sqrt{a+b}}\right]}{2\sqrt{a}\,\sqrt{a+b}}-\frac{x\,\text{Log}\left[1+\frac{b\,e^{2x}}{2\,a+b+2\sqrt{a}\,\sqrt{a+b}}\right]}{2\sqrt{a}\,\sqrt{a+b}}+\frac{\text{PolyLog}\left[2,\ -\frac{b\,e^{2x}}{2\,a+b-2\sqrt{a}\,\sqrt{a+b}}\right]}{4\sqrt{a}\,\sqrt{a+b}}-\frac{\text{PolyLog}\left[2,\ -\frac{b\,e^{2x}}{2\,a+b+2\sqrt{a}\,\sqrt{a+b}}\right]}{4\sqrt{a}\,\sqrt{a+b}}$$

$$-\frac{1}{4\sqrt{-a\,(a+b)}}\left(4\,x\,\text{ArcTan}\left[\frac{(a+b)\,\text{Coth}[x]}{\sqrt{-a\,(a+b)}}\right]+2\,i\,\text{ArcCos}\left[-1-\frac{2\,a}{b}\right]\text{ArcTan}\left[\frac{a\,\text{Tanh}[x]}{\sqrt{-a\,(a+b)}}\right]+\right.$$

$$\left(\text{ArcCos}\left[-1-\frac{2\,a}{b}\right]+2\,\text{ArcTan}\left[\frac{(a+b)\,\text{Coth}[x]}{\sqrt{-a\,(a+b)}}\right]-2\,\text{ArcTan}\left[\frac{a\,\text{Tanh}[x]}{\sqrt{-a\,(a+b)}}\right]\right)\text{Log}\left[\frac{\sqrt{2}\,\sqrt{-a\,(a+b)}\,e^{-x}}{\sqrt{b}\,\sqrt{2\,a+b+b\,\text{Cosh}[2\,x]}}\right]+$$

$$\left(\text{ArcCos}\left[-1-\frac{2\,a}{b}\right]-2\,\text{ArcTan}\left[\frac{(a+b)\,\text{Coth}[x]}{\sqrt{-a\,(a+b)}}\right]+2\,\text{ArcTan}\left[\frac{a\,\text{Tanh}[x]}{\sqrt{-a\,(a+b)}}\right]\right)\text{Log}\left[\frac{\sqrt{2}\,\sqrt{-a\,(a+b)}\,e^{x}}{\sqrt{b}\,\sqrt{2\,a+b+b\,\text{Cosh}[2\,x]}}\right]-$$

$$\left(\text{ArcCos}\left[-1-\frac{2\,a}{b}\right]-2\,\text{ArcTan}\left[\frac{a\,\text{Tanh}[x]}{\sqrt{-a\,(a+b)}}\right]\right)\left(\text{Log}[2]+\text{Log}\left[\frac{(a+b)\left(a+i\sqrt{-a\,(a+b)}\right)(-1+\text{Tanh}[x])}{b\left(a+b+i\sqrt{-a\,(a+b)}\,\text{Tanh}[x]\right)}\right]\right)-$$

$$\left(\text{ArcCos}\left[-1-\frac{2\,a}{b}\right]+2\,\text{ArcTan}\left[\frac{a\,\text{Tanh}[x]}{\sqrt{-a\,(a+b)}}\right]\right)\left(\text{Log}[2]+\text{Log}\left[-\frac{(a+b)\left(a-i\sqrt{-a\,(a+b)}\right)(1+\text{Tanh}[x])}{b\left(a+b+i\sqrt{-a\,(a+b)}\,\text{Tanh}[x]\right)}\right]\right)+$$

$$i\left(\text{PolyLog}\left[2,\ \frac{\left(2\,a+b-2\,i\sqrt{-a\,(a+b)}\right)\left(a+b-i\sqrt{-a\,(a+b)}\,\text{Tanh}[x]\right)}{b\left(a+b+i\sqrt{-a\,(a+b)}\,\text{Tanh}[x]\right)}\right]-\right.$$

$$\left.\left.\text{PolyLog}\left[2,\ \frac{\left(2\,a+b+2\,i\sqrt{-a\,(a+b)}\right)\left(a+b-i\sqrt{-a\,(a+b)}\,\text{Tanh}[x]\right)}{b\left(a+b+i\sqrt{-a\,(a+b)}\,\text{Tanh}[x]\right)}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Cosh}[x]^3},\ x,\ 7,\ 0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/3}-b^{1/3}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}-b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}-b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/3}-(-1)^{2/3}\,b^{1/3}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}+(-1)^{1/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}+(-1)^{1/3}\,b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/3}+(-1)^{1/3}\,b^{1/3}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}-(-1)^{2/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}-(-1)^{2/3}\,b^{2/3}}}$$

$$\frac{2}{3}\,\text{RootSum}\left[b+3\,b\,\#1^2+8\,a\,\#1^3+3\,b\,\#1^4+b\,\#1^6\,\&,\ \frac{x\,\#1+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1}{b+4\,a\,\#1+2\,b\,\#1^2+b\,\#1^4}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Cosh}[x]^5},\ x,\ 11,\ 0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}-b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}+(-1)^{3/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{1/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{1/5}\,b^{2/5}}}+$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}+(-1)^{1/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{2/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{2/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}-(-1)^{4/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{3/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{3/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}-(-1)^{2/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{4/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{4/5}\,b^{2/5}}}$$

$$\frac{8}{5}\,\text{RootSum}\left[b+5\,b\,\text{\#1}^2+10\,b\,\text{\#1}^4+32\,a\,\text{\#1}^5+10\,b\,\text{\#1}^6+5\,b\,\text{\#1}^8+b\,\text{\#1}^{10}\,\&,\right.$$
$$\left.\frac{x\,\text{\#1}^3+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\,\text{\#1}-\text{Sinh}\left[\frac{x}{2}\right]\,\text{\#1}\right]\,\text{\#1}^3}{b+4\,b\,\text{\#1}^2+16\,a\,\text{\#1}^3+6\,b\,\text{\#1}^4+4\,b\,\text{\#1}^6+b\,\text{\#1}^8}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Cosh}[x]^6},\,x,\,10,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Tanh}[x]}{\sqrt{a^{1/3}+b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}+b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Tanh}[x]}{\sqrt{a^{1/3}-(-1)^{1/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}-(-1)^{1/3}\,b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Tanh}[x]}{\sqrt{a^{1/3}+(-1)^{2/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}+(-1)^{2/3}\,b^{1/3}}}$$

$$\frac{16}{3}\,\text{RootSum}\left[b+6\,b\,\text{\#1}+15\,b\,\text{\#1}^2+64\,a\,\text{\#1}^3+20\,b\,\text{\#1}^3+15\,b\,\text{\#1}^4+6\,b\,\text{\#1}^5+b\,\text{\#1}^6\,\&,\right.$$
$$\left.\frac{x\,\text{\#1}^2+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\text{\#1}-\text{Sinh}[x]\,\text{\#1}]\,\text{\#1}^2}{b+5\,b\,\text{\#1}+32\,a\,\text{\#1}^2+10\,b\,\text{\#1}^2+10\,b\,\text{\#1}^3+5\,b\,\text{\#1}^4+b\,\text{\#1}^5}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+b\,\text{Cosh}[x]^8},\,x,\,13,\,0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Tanh}[x]}{\sqrt{(-a)^{1/4}-b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}-b^{1/4}}}-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Tanh}[x]}{\sqrt{(-a)^{1/4}-i\,b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}-i\,b^{1/4}}}-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Tanh}[x]}{\sqrt{(-a)^{1/4}+i\,b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}+i\,b^{1/4}}}-\frac{\text{ArcTanh}\left[\frac{(-a)^{1/8}\,\text{Tanh}[x]}{\sqrt{(-a)^{1/4}+b^{1/4}}}\right]}{4\,(-a)^{7/8}\sqrt{(-a)^{1/4}+b^{1/4}}}$$

$$16\,\text{RootSum}\left[b+8\,b\,\text{\#1}+28\,b\,\text{\#1}^2+56\,b\,\text{\#1}^3+256\,a\,\text{\#1}^4+70\,b\,\text{\#1}^4+56\,b\,\text{\#1}^5+28\,b\,\text{\#1}^6+8\,b\,\text{\#1}^7+b\,\text{\#1}^8\,\&,\right.$$
$$\left.\frac{x\,\text{\#1}^3+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\text{\#1}-\text{Sinh}[x]\,\text{\#1}]\,\text{\#1}^3}{b+7\,b\,\text{\#1}+21\,b\,\text{\#1}^2+128\,a\,\text{\#1}^3+35\,b\,\text{\#1}^3+35\,b\,\text{\#1}^4+21\,b\,\text{\#1}^5+7\,b\,\text{\#1}^6+b\,\text{\#1}^7}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a-b\,\text{Cosh}[x]^3},\,x,\,7,\,0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/3}+b^{1/3}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}-b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}-b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/3}+(-1)^{2/3}\,b^{1/3}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}+(-1)^{1/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}+(-1)^{1/3}\,b^{2/3}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/3}-(-1)^{1/3}\,b^{1/3}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/3}-(-1)^{2/3}\,b^{2/3}}}\right]}{3\,a^{2/3}\sqrt{a^{2/3}-(-1)^{2/3}\,b^{2/3}}}$$

$$-\frac{2}{3}\,\text{RootSum}\left[b+3\,b\,\text{\#1}^2-8\,a\,\text{\#1}^3+3\,b\,\text{\#1}^4+b\,\text{\#1}^6\,\&,\,\frac{x\,\text{\#1}+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\,\text{\#1}-\text{Sinh}\left[\frac{x}{2}\right]\,\text{\#1}\right]\,\text{\#1}}{b-4\,a\,\text{\#1}+2\,b\,\text{\#1}^2+b\,\text{\#1}^4}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a-b\,\text{Cosh}[x]^5},\ x,\ 11,\ 0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}+b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}-(-1)^{3/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{1/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{1/5}\,b^{2/5}}}+$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}-(-1)^{1/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{2/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{2/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}+(-1)^{4/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}+(-1)^{3/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}+(-1)^{3/5}\,b^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(a^{1/5}+(-1)^{2/5}\,b^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^{2/5}-(-1)^{4/5}\,b^{2/5}}}\right]}{5\,a^{4/5}\sqrt{a^{2/5}-(-1)^{4/5}\,b^{2/5}}}$$

$$-\frac{8}{5}\,\text{RootSum}\left[b+5\,b\,\#1^2+10\,b\,\#1^4-32\,a\,\#1^5+10\,b\,\#1^6+5\,b\,\#1^8+b\,\#1^{10}\,\&,\ \frac{x\,\#1^3+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\,\#1-\text{Sinh}\left[\frac{x}{2}\right]\,\#1\right]\,\#1^3}{b+4\,b\,\#1^2-16\,a\,\#1^3+6\,b\,\#1^4+4\,b\,\#1^6+b\,\#1^8}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a-b\,\text{Cosh}[x]^6},\ x,\ 10,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Tanh}[x]}{\sqrt{a^{1/3}-b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}-b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Tanh}[x]}{\sqrt{a^{1/3}+(-1)^{1/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}+(-1)^{1/3}\,b^{1/3}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/6}\,\text{Tanh}[x]}{\sqrt{a^{1/3}-(-1)^{2/3}\,b^{1/3}}}\right]}{3\,a^{5/6}\sqrt{a^{1/3}-(-1)^{2/3}\,b^{1/3}}}$$

$$-\frac{16}{3}\,\text{RootSum}\left[b+6\,b\,\#1+15\,b\,\#1^2-64\,a\,\#1^3+20\,b\,\#1^3+15\,b\,\#1^4+6\,b\,\#1^5+b\,\#1^6\,\&,\ \frac{x\,\#1^2+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\#1-\text{Sinh}[x]\,\#1]\,\#1^2}{b+5\,b\,\#1-32\,a\,\#1^2+10\,b\,\#1^2+10\,b\,\#1^3+5\,b\,\#1^4+b\,\#1^5}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a-b\,\text{Cosh}[x]^8},\ x,\ 13,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Tanh}[x]}{\sqrt{a^{1/4}-b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}-b^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Tanh}[x]}{\sqrt{a^{1/4}-i\,b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}-i\,b^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Tanh}[x]}{\sqrt{a^{1/4}+i\,b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}+i\,b^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{a^{1/8}\,\text{Tanh}[x]}{\sqrt{a^{1/4}+b^{1/4}}}\right]}{4\,a^{7/8}\sqrt{a^{1/4}+b^{1/4}}}$$

$$-16\,\text{RootSum}\left[b+8\,b\,\#1+28\,b\,\#1^2+56\,b\,\#1^3-256\,a\,\#1^4+70\,b\,\#1^4+56\,b\,\#1^5+28\,b\,\#1^6+8\,b\,\#1^7+b\,\#1^8\,\&,\ \frac{x\,\#1^3+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\#1-\text{Sinh}[x]\,\#1]\,\#1^3}{b+7\,b\,\#1+21\,b\,\#1^2-128\,a\,\#1^3+35\,b\,\#1^3+35\,b\,\#1^4+21\,b\,\#1^5+7\,b\,\#1^6+b\,\#1^7}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{1+\text{Cosh}[x]^5},\ x,\ 8,\ 0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(1+(-1)^{1/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{2/5}}}\right]}{5\sqrt{1-(-1)^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(1+(-1)^{3/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{1/5}}}\right]}{5\sqrt{1+(-1)^{1/5}}}+$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(1-(-1)^{2/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{4/5}}}\right]}{5\sqrt{1-(-1)^{4/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(1-(-1)^{4/5}\right)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{3/5}}}\right]}{5\sqrt{1+(-1)^{3/5}}}+\frac{\text{Sinh}[x]}{5\,(1+\text{Cosh}[x])}$$

$$-\frac{1}{10}\,\text{RootSum}\left[1-2\,\#1+8\,\#1^2-14\,\#1^3+30\,\#1^4-14\,\#1^5+8\,\#1^6-2\,\#1^7+\#1^8\,\&,\right.$$
$$\frac{1}{-1+8\,\#1-21\,\#1^2+60\,\#1^3-35\,\#1^4+24\,\#1^5-7\,\#1^6+4\,\#1^7}\left(x+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]-\right.$$
$$4\,x\,\#1-8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1+$$
$$15\,x\,\#1^2+30\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2-$$
$$40\,x\,\#1^3-80\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^3+$$
$$15\,x\,\#1^4+30\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4-$$
$$4\,x\,\#1^5-8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^5+x\,\#1^6+$$
$$\left.\left.2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]+\frac{1}{5}\,\text{Tanh}\left[\frac{x}{2}\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{1+\text{Cosh}[x]^8},\,x,\,11,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{1-(-1)^{1/4}}}\right]}{4\sqrt{1-(-1)^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{1+(-1)^{1/4}}}\right]}{4\sqrt{1+(-1)^{1/4}}}+\frac{\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{1-(-1)^{3/4}}}\right]}{4\sqrt{1-(-1)^{3/4}}}+\frac{\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{1+(-1)^{3/4}}}\right]}{4\sqrt{1+(-1)^{3/4}}}$$

$$16\,\text{RootSum}\left[1+8\,\#1+28\,\#1^2+56\,\#1^3+326\,\#1^4+56\,\#1^5+28\,\#1^6+8\,\#1^7+\#1^8\,\&,\right.$$
$$\left.\frac{x\,\#1^3+\text{Log}[-\text{Cosh}[x]-\text{Sinh}[x]+\text{Cosh}[x]\,\#1-\text{Sinh}[x]\,\#1]\,\#1^3}{1+7\,\#1+21\,\#1^2+163\,\#1^3+35\,\#1^4+21\,\#1^5+7\,\#1^6+\#1^7}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{1-\text{Cosh}[x]^5},\,x,\,8,\,0\right\}$$

$$\frac{2\,\text{ArcTanh}\left[\frac{\left(1-(-1)^{1/5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{2/5}}}\right]}{5\sqrt{1-(-1)^{2/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(1-(-1)^{3/5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{1/5}}}\right]}{5\sqrt{1+(-1)^{1/5}}}+$$
$$\frac{2\,\text{ArcTanh}\left[\frac{\left(1+(-1)^{2/5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1-(-1)^{4/5}}}\right]}{5\sqrt{1-(-1)^{4/5}}}+\frac{2\,\text{ArcTanh}\left[\frac{\left(1+(-1)^{4/5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{1+(-1)^{3/5}}}\right]}{5\sqrt{1+(-1)^{3/5}}}-\frac{\text{Sinh}[x]}{5\,(1-\text{Cosh}[x])}$$

$$\frac{1}{5}\text{Coth}\left[\frac{x}{2}\right] + \frac{1}{10}\text{RootSum}\left[1 + 2\,\#1 + 8\,\#1^2 + 14\,\#1^3 + 30\,\#1^4 + 14\,\#1^5 + 8\,\#1^6 + 2\,\#1^7 + \#1^8\,\&,\ \frac{1}{1 + 8\,\#1 + 21\,\#1^2 + 60\,\#1^3 + 35\,\#1^4 + 24\,\#1^5 + 7\,\#1^6 + 4\,\#1^7}\right.$$
$$\left(x + 2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right] + 4\,x\,\#1 + 8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \right.\right.$$
$$\left.\text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1 + 15\,x\,\#1^2 + 30\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2 +$$
$$40\,x\,\#1^3 + 80\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^3 + 15\,x\,\#1^4 +$$
$$30\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4 + 4\,x\,\#1^5 +$$
$$8\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^5 + x\,\#1^6 +$$
$$\left.\left.2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right] + \text{Cosh}\left[\frac{x}{2}\right]\#1 - \text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Cosh}\left[\frac{a + b\,x}{c + d\,x}\right],\ x,\ 5,\ 0\right\}$$

$$\frac{(c + d\,x)\,\text{Cosh}\left[\frac{a+b\,x}{c+d\,x}\right]}{d} + \frac{(b\,c - a\,d)\,\text{CoshIntegral}\left[-\frac{b\,c-a\,d}{d\,(c+d\,x)}\right]\text{Sinh}\left[\frac{b}{d}\right]}{d^2} + \frac{(b\,c - a\,d)\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{a}{c+d\,x} - \frac{b\,c}{d\,(c+d\,x)}\right]}{d^2}$$

$$\frac{1}{2\,d^2}\left(2\,c\,d\,\text{Cosh}\left[\frac{a + b\,x}{c + d\,x}\right] + 2\,d^2\,x\,\text{Cosh}\left[\frac{a + b\,x}{c + d\,x}\right] + (b\,c - a\,d)\,\text{CoshIntegral}\left[\frac{b\,c - a\,d}{c\,d + d^2\,x}\right]\left(-\text{Cosh}\left[\frac{b}{d}\right] + \text{Sinh}\left[\frac{b}{d}\right]\right) +\right.$$
$$(b\,c - a\,d)\,\text{CoshIntegral}\left[\frac{-b\,c + a\,d}{d\,(c + d\,x)}\right]\left(\text{Cosh}\left[\frac{b}{d}\right] + \text{Sinh}\left[\frac{b}{d}\right]\right) + b\,c\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c + a\,d}{d\,(c + d\,x)}\right] -$$
$$a\,d\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c + a\,d}{d\,(c + d\,x)}\right] + b\,c\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c + a\,d}{d\,(c + d\,x)}\right] -$$
$$a\,d\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{-b\,c + a\,d}{d\,(c + d\,x)}\right] - b\,c\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c - a\,d}{c\,d + d^2\,x}\right] +$$
$$\left.a\,d\,\text{Cosh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c - a\,d}{c\,d + d^2\,x}\right] + b\,c\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c - a\,d}{c\,d + d^2\,x}\right] - a\,d\,\text{Sinh}\left[\frac{b}{d}\right]\text{SinhIntegral}\left[\frac{b\,c - a\,d}{c\,d + d^2\,x}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x^2}{\text{Cosh}[x]^{3/2}} + x^2\sqrt{\text{Cosh}[x]},\ x,\ 3,\ 0\right\}$$

$$-8\,x\sqrt{\text{Cosh}[x]} - 16\,i\,\text{EllipticE}\left[\frac{i\,x}{2},\ 2\right] + \frac{2\,x^2\,\text{Sinh}[x]}{\sqrt{\text{Cosh}[x]}}$$

$$\frac{1}{\sqrt{\text{Cosh}[x]}}$$

$$2\left(x^2\,\text{Sinh}[x] - 2\,(\text{Cosh}[x] - \text{Sinh}[x])\left(4\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -\text{Cosh}[2\,x] - \text{Sinh}[2\,x]\right]\sqrt{1 + \text{Cosh}[2\,x] + \text{Sinh}[2\,x]} +\right.\right.$$
$$\left.\left.(-2 + x)\,(1 + \text{Cosh}[2\,x] + \text{Sinh}[2\,x])\right)\right)$$

Problems involving hyperbolic tangents

Valid but unnecessarily complicated antiderivative:

$\{x \operatorname{Tanh}[a+b x], x, 4, 0\}$

$$-\frac{x^2}{2}+\frac{x \operatorname{Log}\left[1+e^{2 a+2 b x}\right]}{b}+\frac{\operatorname{PolyLog}\left[2,-e^{2 a+2 b x}\right]}{2 b^2}$$

$$\frac{1}{2}\left(x^2 \operatorname{Tanh}[a]-\frac{1}{b^2}\left(-i b \pi x+i \pi \operatorname{Log}\left[1+e^{2 b x}\right]-2 b x \operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]-\right.\right.$$
$$\left.2 \operatorname{ArcTanh}[\operatorname{Coth}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]]]]\right)+$$
$$\left.\left.\operatorname{PolyLog}\left[2, e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]+b^2 e^{-\operatorname{ArcTanh}[\operatorname{Coth}[a]]} x^2 \sqrt{-\operatorname{Csch}[a]^2} \operatorname{Tanh}[a]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$\left\{x \operatorname{Tanh}[a+b x]^3, x, 6, 0\right\}$

$$-\frac{x^2}{2}+\frac{x \operatorname{Log}\left[1+e^{2 a+2 b x}\right]}{b}+\frac{\operatorname{PolyLog}\left[2,-e^{2 a+2 b x}\right]}{2 b^2}+\frac{x \operatorname{Sech}[a+b x]^2}{2 b}-\frac{\operatorname{Tanh}[a+b x]}{2 b^2}$$

$$\frac{1}{2}\left(\frac{i \pi x}{b}-\frac{i \pi \operatorname{Log}\left[1+e^{2 b x}\right]}{b^2}+\frac{2 x \operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]}{b}+\frac{i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]}{b^2}+\right.$$
$$\frac{2 \operatorname{ArcTanh}[\operatorname{Coth}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]]]]\right)}{b^2}-$$
$$\frac{\operatorname{PolyLog}\left[2, e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]}{b^2}+\frac{x \operatorname{Sech}[a+b x]^2}{b}-$$
$$\left.\frac{\operatorname{Sech}[a] \operatorname{Sech}[a+b x] \operatorname{Sinh}[b x]}{b^2}+x^2 \operatorname{Tanh}[a]-e^{-\operatorname{ArcTanh}[\operatorname{Coth}[a]]} x^2 \sqrt{-\operatorname{Csch}[a]^2} \operatorname{Tanh}[a]\right)$$

Valid but unnecessarily complicated antiderivative:

$\left\{x^2 \operatorname{Tanh}[a+b x]^2, x, 6, 0\right\}$

$$-\frac{x^2}{b}+\frac{x^3}{3}+\frac{2 x \operatorname{Log}\left[1+e^{2 a+2 b x}\right]}{b^2}+\frac{\operatorname{PolyLog}\left[2,-e^{2 a+2 b x}\right]}{b^3}-\frac{x^2 \operatorname{Tanh}[a+b x]}{b}$$

$$\frac{i \pi x}{b^2}+\frac{x^3}{3}-\frac{i \pi \operatorname{Log}\left[1+e^{2 b x}\right]}{b^3}+\frac{2 x \operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]}{b^2}+\frac{i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]}{b^3}+$$
$$\frac{2 \operatorname{ArcTanh}[\operatorname{Coth}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]]]]\right)}{b^3}-$$
$$\frac{\operatorname{PolyLog}\left[2, e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]}{b^3}-\frac{x^2 \operatorname{Sech}[a] \operatorname{Sech}[a+b x] \operatorname{Sinh}[b x]}{b}-\frac{e^{-\operatorname{ArcTanh}[\operatorname{Coth}[a]]} x^2 \sqrt{-\operatorname{Csch}[a]^2} \operatorname{Tanh}[a]}{b}$$

Valid but unnecessarily complicated antiderivative:

$\left\{\sqrt{1-\operatorname{Tanh}[x]^2}, x, 2, 0\right\}$

$\operatorname{ArcSin}[\operatorname{Tanh}[x]]$

$$2 \operatorname{ArcTan}\left[\operatorname{Tanh}\left[\frac{x}{2}\right]\right] \operatorname{Cosh}[x] \sqrt{\operatorname{Sech}[x]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Tanh}[x]^2}\,,\ x,\ 4,\ 0\right\}$$

$$-\sqrt{b}\ \text{ArcTanh}\left[\frac{\sqrt{b}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]+\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]$$

$$\frac{1}{2}\left(-\sqrt{a+b}\ \text{Log}\left[(a+b)^{3/2}\ (-1+\text{Tanh}[x])\right]+\right.$$
$$\sqrt{a+b}\ \text{Log}\left[(a+b)^{3/2}\ (1+\text{Tanh}[x])\right]-2\sqrt{b}\ \text{Log}\left[2\left(b\,\text{Tanh}[x]+\sqrt{b}\ \sqrt{a+b\,\text{Tanh}[x]^2}\right)\right]-$$
$$\left.\sqrt{a+b}\ \text{Log}\left[4\left(a-b\,\text{Tanh}[x]+\sqrt{a+b}\ \sqrt{a+b\,\text{Tanh}[x]^2}\right)\right]+\sqrt{a+b}\ \text{Log}\left[-4\left(a+b\,\text{Tanh}[x]+\sqrt{a+b}\ \sqrt{a+b\,\text{Tanh}[x]^2}\right)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a+b\,\text{Tanh}[x]^2}},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]}{\sqrt{a+b}}$$

$$\frac{1}{2\sqrt{a+b}}\left(-\text{Log}\left[\sqrt{a+b}\ (-1+\text{Tanh}[x])\right]+\text{Log}\left[\sqrt{a+b}\ (1+\text{Tanh}[x])\right]-\right.$$
$$\left.\text{Log}\left[4\left(a-b\,\text{Tanh}[x]+\sqrt{a+b}\ \sqrt{a+b\,\text{Tanh}[x]^2}\right)\right]+\text{Log}\left[-4\left(a+b\,\text{Tanh}[x]+\sqrt{a+b}\ \sqrt{a+b\,\text{Tanh}[x]^2}\right)\right]\right)$$

Problems involving hyperbolic cotangents

Valid but unnecessarily complicated antiderivative:

$$\{x \operatorname{Coth}[a+b x], x, 4, 0\}$$

$$-\frac{x^2}{2}+\frac{x \operatorname{Log}\left[1-e^{2 a+2 b x}\right]}{b}+\frac{\operatorname{PolyLog}\left[2, e^{2 a+2 b x}\right]}{2 b^2}$$

$$\frac{1}{2}\left(\frac{i \pi x}{b}+x^2 \operatorname{Coth}[a]-\frac{i \pi \operatorname{Log}\left[1+e^{2 b x}\right]}{b^2}+\frac{2 x \operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]}{b}+\frac{i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]}{b^2}+\right.$$
$$\frac{2 \operatorname{ArcTanh}[\operatorname{Tanh}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]]]]\right)}{b^2}-$$
$$\left.\frac{\operatorname{PolyLog}\left[2, e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]}{b^2}-e^{-\operatorname{ArcTanh}[\operatorname{Tanh}[a]]} x^2 \operatorname{Coth}[a] \sqrt{\operatorname{Sech}[a]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x \operatorname{Coth}[a+b x]^3, x, 6, 0\right\}$$

$$-\frac{x^2}{2}-\frac{\operatorname{Coth}[a+b x]}{2 b^2}-\frac{x \operatorname{Csch}[a+b x]^2}{2 b}+\frac{x \operatorname{Log}\left[1-e^{2 a+2 b x}\right]}{b}+\frac{\operatorname{PolyLog}\left[2, e^{2 a+2 b x}\right]}{2 b^2}$$

$$\frac{1}{2}\left(\frac{i \pi x}{b}+x^2 \operatorname{Coth}[a]-\frac{x \operatorname{Csch}[a+b x]^2}{b}-\frac{i \pi \operatorname{Log}\left[1+e^{2 b x}\right]}{b^2}+\frac{2 x \operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]}{b}+\frac{i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]}{b^2}+\right.$$
$$\frac{2 \operatorname{ArcTanh}[\operatorname{Tanh}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]]]]\right)}{b^2}-$$
$$\left.\frac{\operatorname{PolyLog}\left[2, e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]}{b^2}-e^{-\operatorname{ArcTanh}[\operatorname{Tanh}[a]]} x^2 \operatorname{Coth}[a] \sqrt{\operatorname{Sech}[a]^2}+\frac{\operatorname{Csch}[a] \operatorname{Csch}[a+b x] \operatorname{Sinh}[b x]}{b^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x^2 \operatorname{Coth}[a+b x]^2, x, 6, 0\right\}$$

$$-\frac{x^2}{b}+\frac{x^3}{3}-\frac{x^2 \operatorname{Coth}[a+b x]}{b}+\frac{2 x \operatorname{Log}\left[1-e^{2 a+2 b x}\right]}{b^2}+\frac{\operatorname{PolyLog}\left[2, e^{2 a+2 b x}\right]}{b^3}$$

$$\frac{x^3}{3}+\frac{1}{b^3}\left(i b \pi x-i \pi \operatorname{Log}\left[1+e^{2 b x}\right]+2 b x \operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]+i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]+\right.$$
$$2 \operatorname{ArcTanh}[\operatorname{Tanh}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]]]]\right)-$$
$$\left.\operatorname{PolyLog}\left[2, e^{-2 (b x+\operatorname{ArcTanh}[\operatorname{Tanh}[a]])}\right]-b^2 e^{-\operatorname{ArcTanh}[\operatorname{Tanh}[a]]} x^2 \operatorname{Coth}[a] \sqrt{\operatorname{Sech}[a]^2}\right)+\frac{x^2 \operatorname{Csch}[a] \operatorname{Csch}[a+b x] \operatorname{Sinh}[b x]}{b}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{1+\operatorname{Coth}[x]}, x, 1, 0\right\}$$

$$\sqrt{2} \operatorname{ArcCoth}\left[\frac{\sqrt{1+\operatorname{Coth}[x]}}{\sqrt{2}}\right]$$

$$\frac{(1+i) \operatorname{ArcTan}\left[\left(\frac{1}{2}+\frac{i}{2}\right) \sqrt{i (1+\operatorname{Coth}[x])}\right] (1+\operatorname{Coth}[x])^{3/2}}{(i (1+\operatorname{Coth}[x]))^{3/2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1+\text{Coth}[x]}}, x, 2, 0\right\}$$

$$\frac{\text{ArcCoth}\left[\frac{\sqrt{1+\text{Coth}[x]}}{\sqrt{2}}\right]}{\sqrt{2}} - \frac{1}{\sqrt{1+\text{Coth}[x]}}$$

$$\frac{(1-i)\,\text{ArcTan}\left[\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{i\,(1+\text{Coth}[x])}\,\right] + (1-i)\,\text{ArcTan}\left[\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{i\,(1+\text{Coth}[x])}\,\right]\text{Coth}[x] - 2\sqrt{i\,(1+\text{Coth}[x])}}{2\sqrt{i\,(1+\text{Coth}[x])}\,\sqrt{1+\text{Coth}[x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{1-\text{Coth}[x]^2}, x, 2, 0\right\}$$

$$\text{ArcCsc}[\text{Tanh}[x]]$$

$$\sqrt{-\text{Csch}[x]^2}\,\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right] + \text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\text{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{-1+\text{Coth}[x]^2}, x, 3, 0\right\}$$

$$-\text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{\text{Csch}[x]^2}}\right]$$

$$\sqrt{\text{Csch}[x]^2}\,\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right] + \text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\text{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Coth}[x]^2}, x, 4, 0\right\}$$

$$-\sqrt{b}\,\text{ArcTanh}\left[\frac{\sqrt{b}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right] + \sqrt{a+b}\,\text{ArcTanh}\left[\frac{\sqrt{a+b}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right]$$

$$\frac{1}{2}\left(-\sqrt{a+b}\,\text{Log}\left[(a+b)^{3/2}\,(-1+\text{Coth}[x])\right] + \sqrt{a+b}\,\text{Log}\left[(a+b)^{3/2}\,(1+\text{Coth}[x])\right] - 2\sqrt{b}\,\text{Log}\left[2\left(b\,\text{Coth}[x] + \sqrt{b}\,\sqrt{a+b\,\text{Coth}[x]^2}\right)\right] - \sqrt{a+b}\,\text{Log}\left[-4\left(a-b\,\text{Coth}[x] + \sqrt{a+b}\,\sqrt{a+b\,\text{Coth}[x]^2}\right)\right] + \sqrt{a+b}\,\text{Log}\left[4\left(a+b\,\text{Coth}[x] + \sqrt{a+b}\,\sqrt{a+b\,\text{Coth}[x]^2}\right)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a+b\,\text{Coth}[x]^2}}, x, 2, 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right]}{\sqrt{a+b}}$$

$$\frac{1}{2\sqrt{a+b}}\left(-\text{Log}\left[\sqrt{a+b}\,(-1+\text{Coth}[x])\right] + \text{Log}\left[\sqrt{a+b}\,(1+\text{Coth}[x])\right] - \text{Log}\left[-4\left(a-b\,\text{Coth}[x] + \sqrt{a+b}\,\sqrt{a+b\,\text{Coth}[x]^2}\right)\right] + \text{Log}\left[4\left(a+b\,\text{Coth}[x] + \sqrt{a+b}\,\sqrt{a+b\,\text{Coth}[x]^2}\right)\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(1+\text{Coth}[x]^2\right)^{3/2},\ x,\ 8,\ 0\right\}$$

$$-\frac{5}{2}\,\text{ArcCsch}[\text{Tanh}[x]]+2\sqrt{2}\,\text{ArcTanh}\left[\frac{\sqrt{2}\,\text{Coth}[x]}{\sqrt{1+\text{Coth}[x]^2}}\right]-\frac{1}{2}\,\text{Coth}[x]\,\sqrt{1+\text{Coth}[x]^2}$$

$$\frac{1}{2}\left(1+\text{Coth}[x]^2\right)^{3/2}\text{Sinh}[x]\left(-\text{Cosh}[x]\,\text{Sech}[2x]-\frac{\text{ArcTan}\left[\frac{\text{Cosh}[x]}{\sqrt{-\text{Cosh}[2x]}}\right]\text{Sinh}[x]^2}{(-\text{Cosh}[2x])^{3/2}}-\right.$$

$$\left.\frac{4\,\text{ArcTanh}\left[\frac{\text{Cosh}[x]}{\sqrt{\text{Cosh}[2x]}}\right]\text{Sinh}[x]^2}{\text{Cosh}[2x]^{3/2}}+\frac{4\sqrt{2}\,\text{Log}\left[\sqrt{2}\,\text{Cosh}[x]+\sqrt{\text{Cosh}[2x]}\right]\text{Sinh}[x]^2}{\text{Cosh}[2x]^{3/2}}\right)$$

Problems involving hyperbolic secants

Valid but unnecessarily complicated antiderivative:

$$\{x \operatorname{Sech}[a+b x], x, 4, 0\}$$

$$\frac{2 x \operatorname{ArcTan}\left[e^{a+b x}\right]}{b}-\frac{i \operatorname{PolyLog}\left[2,-i e^{a+b x}\right]}{b^2}+\frac{i \operatorname{PolyLog}\left[2, i e^{a+b x}\right]}{b^2}$$

$$-\frac{1}{2 b^2}\left((-2 i a+\pi-2 i b x)\left(\operatorname{Log}\left[1-i e^{a+b x}\right]-\operatorname{Log}\left[1+i e^{a+b x}\right]\right)-\right.$$

$$\left.(-2 i a+\pi) \operatorname{Log}\left[\operatorname{Cot}\left[\frac{1}{4}(2 i a+\pi+2 i b x)\right]\right]+2 i\left(\operatorname{PolyLog}\left[2,-i e^{a+b x}\right]-\operatorname{PolyLog}\left[2, i e^{a+b x}\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x^2 \operatorname{Sech}[a+b x]^2, x, 5, 0\right\}$$

$$\frac{x^2}{b}-\frac{2 x \operatorname{Log}\left[1+e^{2 a+2 b x}\right]}{b^2}-\frac{\operatorname{PolyLog}\left[2,-e^{2 a+2 b x}\right]}{b^3}+\frac{x^2 \operatorname{Tanh}[a+b x]}{b}$$

$$\frac{1}{b^3}\left(-i b \pi x+i \pi \operatorname{Log}\left[1+e^{2 b x}\right]-2 b x \operatorname{Log}\left[1-e^{-2(b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-i \pi \operatorname{Log}[\operatorname{Cosh}[b x]]-\right.$$

$$2 \operatorname{ArcTanh}[\operatorname{Coth}[a]]\left(b x+\operatorname{Log}\left[1-e^{-2(b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]]]]\right)+$$

$$\left.\operatorname{PolyLog}\left[2, e^{-2(b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]+b^2 x^2 \operatorname{Sech}[a] \operatorname{Sech}[a+b x] \operatorname{Sinh}[b x]+b^2 e^{-\operatorname{ArcTanh}[\operatorname{Coth}[a]]} x^2 \sqrt{-\operatorname{Csch}[a]^2} \operatorname{Tanh}[a]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{(c+d x) \operatorname{Sech}[a+b x], x, 5, 0\}$$

$$\frac{2(c+d x) \operatorname{ArcTan}\left[e^{a+b x}\right]}{b}-\frac{i d \operatorname{PolyLog}\left[2,-i e^{a+b x}\right]}{b^2}+\frac{i d \operatorname{PolyLog}\left[2, i e^{a+b x}\right]}{b^2}$$

$$\frac{1}{b^2}\left(2 b c \operatorname{ArcTan}\left[\operatorname{Tanh}\left[\frac{1}{2}(a+b x)\right]\right]-\frac{1}{2} d\left((-2 i a+\pi-2 i b x)\left(\operatorname{Log}\left[1-i e^{a+b x}\right]-\operatorname{Log}\left[1+i e^{a+b x}\right]\right)-\right.\right.$$

$$\left.\left.(-2 i a+\pi) \operatorname{Log}\left[\operatorname{Cot}\left[\frac{1}{4}(2 i a+\pi+2 i b x)\right]\right]+2 i\left(\operatorname{PolyLog}\left[2,-i e^{a+b x}\right]-\operatorname{PolyLog}\left[2, i e^{a+b x}\right]\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(c+d x)^2 \operatorname{Sech}[a+b x]^2, x, 6, 0\right\}$$

$$\frac{(c+d x)^2}{b}-\frac{2 d(c+d x) \operatorname{Log}\left[1+e^{2 a+2 b x}\right]}{b^2}-\frac{d^2 \operatorname{PolyLog}\left[2,-e^{2 a+2 b x}\right]}{b^3}+\frac{(c+d x)^2 \operatorname{Tanh}[a+b x]}{b}$$

$$\frac{1}{b^3} \operatorname{Sech}[a]\left(d^2 e^{-\operatorname{ArcTanh}[\operatorname{Coth}[a]]}\left(-i b e^{\operatorname{ArcTanh}[\operatorname{Coth}[a]]} \pi x \operatorname{Coth}[a]+b^2 x^2 \sqrt{-\operatorname{Csch}[a]^2}+i e^{\operatorname{ArcTanh}[\operatorname{Coth}[a]]} \pi \operatorname{Coth}[a] \operatorname{Log}\left[1+e^{2 b x}\right]-\right.\right.$$

$$2 b e^{\operatorname{ArcTanh}[\operatorname{Coth}[a]]} x \operatorname{Coth}[a] \operatorname{Log}\left[1-e^{-2(b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-i e^{\operatorname{ArcTanh}[\operatorname{Coth}[a]]} \pi \operatorname{Coth}[a] \operatorname{Log}[\operatorname{Cosh}[b x]]-$$

$$2 e^{\operatorname{ArcTanh}[\operatorname{Coth}[a]]} \operatorname{ArcTanh}[\operatorname{Coth}[a]] \operatorname{Coth}[a]\left(b x+\operatorname{Log}\left[1-e^{-2(b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]-\operatorname{Log}[i \operatorname{Sinh}[b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]]]]\right)+$$

$$\left.\left.e^{\operatorname{ArcTanh}[\operatorname{Coth}[a]]} \operatorname{Coth}[a] \operatorname{PolyLog}\left[2, e^{-2(b x+\operatorname{ArcTanh}[\operatorname{Coth}[a]])}\right]\right) \operatorname{Sinh}[a]+\right.$$

$$\left.2 b c d(-\operatorname{Cosh}[a] \operatorname{Log}[\operatorname{Cosh}[a+b x]]+b x \operatorname{Sinh}[a])+b^2(c+d x)^2 \operatorname{Sech}[a+b x] \operatorname{Sinh}[b x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\operatorname{Sech}[x]^2}, x, 2, 0\right\}$$

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ArcSin[Tanh[x]]
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$$2 \operatorname{ArcTan}\left[\operatorname{Tanh}\left[\frac{x}{2}\right]\right] \operatorname{Cosh}[x] \sqrt{\operatorname{Sech}[x]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{3+5 \operatorname{Sech}[x]}, x, 3, 0\right\}$$

$$\frac{x}{3}-\frac{5}{6} \operatorname{ArcTanh}\left[\frac{1}{2} \operatorname{Tanh}\left[\frac{x}{2}\right]\right]$$

$$\frac{1}{12}\left(4 x+5 \operatorname{Log}\left[2 \operatorname{Cosh}\left[\frac{x}{2}\right]-\operatorname{Sinh}\left[\frac{x}{2}\right]\right]-5 \operatorname{Log}\left[2 \operatorname{Cosh}\left[\frac{x}{2}\right]+\operatorname{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{1+\operatorname{Sech}[x]^2}, x, 4, 0\right\}$$

$$\operatorname{ArcSin}\left[\frac{\operatorname{Tanh}[x]}{\sqrt{2}}\right]+\operatorname{ArcTanh}\left[\frac{\operatorname{Tanh}[x]}{\sqrt{2-\operatorname{Tanh}[x]^2}}\right]$$

$$\frac{\sqrt{2}\left(\operatorname{ArcSinh}\left[\frac{\operatorname{Sinh}[x]}{\sqrt{2}}\right]+\operatorname{ArcTan}\left[\frac{\sqrt{2} \operatorname{Sinh}[x]}{\sqrt{3+\operatorname{Cosh}[2 x]}}\right]\right) \operatorname{Cosh}[x] \sqrt{1+\operatorname{Sech}[x]^2}}{\sqrt{3+\operatorname{Cosh}[2 x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b \operatorname{Sech}[x]^2}, x, 4, 0\right\}$$

$$\sqrt{b} \operatorname{ArcTan}\left[\frac{\sqrt{b} \operatorname{Tanh}[x]}{\sqrt{a+b \operatorname{Sech}[x]^2}}\right]+\sqrt{a} \operatorname{ArcTanh}\left[\frac{\sqrt{a} \operatorname{Tanh}[x]}{\sqrt{a+b \operatorname{Sech}[x]^2}}\right]$$

$$\frac{1}{a+2 b+a \operatorname{Cosh}[2 x]} \sqrt{2} \operatorname{Cosh}[x]$$

$$\left(\sqrt{b} \operatorname{ArcTan}\left[\frac{\sqrt{2} \sqrt{b} \operatorname{Sinh}[x]}{\sqrt{a+2 b+a \operatorname{Cosh}[2 x]}}\right] \sqrt{a+2 b+a \operatorname{Cosh}[2 x]}+\sqrt{a} \sqrt{a+b} \operatorname{ArcSinh}\left[\frac{\sqrt{a} \operatorname{Sinh}[x]}{\sqrt{a+b}}\right] \sqrt{\frac{a+2 b+a \operatorname{Cosh}[2 x]}{a+b}}\right)$$

$$\sqrt{a+b \operatorname{Sech}[x]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1+\operatorname{Sech}[x]^2}}, x, 2, 0\right\}$$

$$\operatorname{ArcTanh}\left[\frac{\operatorname{Tanh}[x]}{\sqrt{2-\operatorname{Tanh}[x]^2}}\right]$$

$$\frac{\operatorname{ArcTanh}\left[\frac{\sqrt{2} \operatorname{Sinh}[x]}{\sqrt{3+\operatorname{Cosh}[2 x]}}\right] \sqrt{3+\operatorname{Cosh}[2 x]} \operatorname{Sech}[x]}{\sqrt{2} \sqrt{1+\operatorname{Sech}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{-1-\text{Sech}[x]^2}},\ x,\ 2,\ 0\right\}$$

$$\text{ArcTan}\left[\frac{\text{Tanh}[x]}{\sqrt{-2+\text{Tanh}[x]^2}}\right]$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{2}\ \text{Sinh}[x]}{\sqrt{3+\text{Cosh}[2x]}}\right]\sqrt{3+\text{Cosh}[2x]}\ \text{Sech}[x]}{\sqrt{2}\ \sqrt{-1-\text{Sech}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a+b\,\text{Sech}[x]^2}},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Sech}[x]^2}}\right]}{\sqrt{a}}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a}\ \text{Sinh}[x]}{\sqrt{a+2b+a\,\text{Cosh}[2x]}}\right]\sqrt{a+2b+a\,\text{Cosh}[2x]}\ \text{Sech}[x]}{\sqrt{2}\ \sqrt{a}\ \sqrt{a+b\,\text{Sech}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(1+\text{Sech}[x]^2\right)^{3/2},\ x,\ 7,\ 0\right\}$$

$$2\,\text{ArcSin}\left[\frac{\text{Tanh}[x]}{\sqrt{2}}\right]+\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{2-\text{Tanh}[x]^2}}\right]+\frac{1}{2}\,\text{Tanh}[x]\,\sqrt{2-\text{Tanh}[x]^2}$$

$$\frac{1}{4\,(1+\text{Cosh}[x])\,\sqrt{\frac{3+\text{Cosh}[2x]}{(1+\text{Cosh}[x])^2}}}\,\text{Sech}[x]\,\sqrt{1+\text{Sech}[x]^2}\left(24\,(-1)^{1/4}\,\text{Cosh}[x]^2\,\text{EllipticF}\left[i\,\text{ArcSinh}\left[(-1)^{1/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\ -1\right]-\right.$$

$$32\,(-1)^{1/4}\,\text{Cosh}[x]^2\,\text{EllipticPi}\left[-i,\ i\,\text{ArcSinh}\left[(-1)^{1/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\ -1\right]-$$

$$8\,(-1)^{1/4}\,\text{EllipticPi}\left[i,\ \text{ArcSin}\left[(-1)^{3/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\ -1\right]-8\,(-1)^{1/4}\,\text{Cosh}[2x]\,\text{EllipticPi}\left[i,\ \text{ArcSin}\left[(-1)^{3/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\ -1\right]+$$

$$\left.\sqrt{(3+\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}\ \text{Sinh}[x]+\text{Cosh}[x]\,\sqrt{(3+\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}\ \text{Sinh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\left(-1-\text{Sech}[x]^2\right)^{3/2},\ x,\ 8,\ 0\right\}$$

$$\text{ArcTan}\left[\frac{\text{Tanh}[x]}{\sqrt{-2+\text{Tanh}[x]^2}}\right]+2\,\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{-2+\text{Tanh}[x]^2}}\right]-\frac{1}{2}\,\text{Tanh}[x]\,\sqrt{-2+\text{Tanh}[x]^2}$$

$$-\frac{1}{4\,(1+\text{Cosh}[x])\,\sqrt{\frac{3+\text{Cosh}[2x]}{(1+\text{Cosh}[x])^2}}}\,\text{Sech}[x]\,\sqrt{-1-\text{Sech}[x]^2}\left(24\,(-1)^{1/4}\,\text{Cosh}[x]^2\,\text{EllipticF}\left[i\,\text{ArcSinh}\left[(-1)^{1/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],-1\right]-32\,(-1)^{1/4}\,\text{Cosh}[x]^2\,\text{EllipticPi}\left[-i,\,i\,\text{ArcSinh}\left[(-1)^{1/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],-1\right]-8\,(-1)^{1/4}\,\text{EllipticPi}\left[i,\,\text{ArcSin}\left[(-1)^{3/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],-1\right]-8\,(-1)^{1/4}\,\text{Cosh}[2x]\,\text{EllipticPi}\left[i,\,\text{ArcSin}\left[(-1)^{3/4}\,\text{Tanh}\left[\frac{x}{2}\right]\right],-1\right]+\sqrt{(3+\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}\,\text{Sinh}[x]+\text{Cosh}[x]\,\sqrt{(3+\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}\,\text{Sinh}[x]\right)$$

Incorrect antiderivative:

$$\left\{\text{Sech}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(-2+p)}\right]^p,\,x,\,1,\,0\right\}$$

$$\frac{(2-p)\,x\,\text{Sech}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-2+p}}{1-p}+\frac{(2-p)\,x\,\text{Sech}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-1+p}\,\text{Sinh}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]}{1-p}$$

$$\frac{2^{-1+p}\,e^a\,(-2+p)\,x\,(c\,x^n)^{\frac{1}{n\,(-2+p)}}\left(\frac{e^{\frac{a\,(2+p)}{-2+p}}\,(c\,x^n)^{\frac{1}{n\,(-2+p)}}}{e^{\frac{4\,a}{-2+p}}+e^{\frac{2\,a\,p}{-2+p}}\,(c\,x^n)^{\frac{2}{n\,(-2+p)}}}\right)^{-1+p}}{-1+p}$$

Incorrect antiderivative:

$$\left\{\text{Sech}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(-2+p)}\right]^p,\,x,\,1,\,0\right\}$$

$$\frac{(2-p)\,x\,\text{Sech}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-2+p}}{1-p}-\frac{(2-p)\,x\,\text{Sech}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-1+p}\,\text{Sinh}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]}{1-p}$$

$$\frac{2^{-1+p}\,e^{-a}\,(-2+p)\,x\,(c\,x^n)^{\frac{1}{n\,(-2+p)}}\left(\frac{e^{\frac{a\,(2+p)}{-2+p}}\,(c\,x^n)^{\frac{1}{n\,(-2+p)}}}{e^{\frac{2\,a\,p}{-2+p}}+e^{\frac{4\,a}{-2+p}}\,(c\,x^n)^{\frac{2}{n\,(-2+p)}}}\right)^{-1+p}}{-1+p}$$

Problems involving hyperbolic cosecants

Valid but unnecessarily complicated antiderivative:

$\{\text{Csch}[a+b\,x],\ x,\ 1,\ 0\}$

$$-\frac{\text{ArcCoth}[\text{Cosh}[a+b\,x]]}{b}$$

$$\frac{-\text{Log}\left[2\,\text{Cosh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]}{b}$$

Valid but unnecessarily complicated antiderivative:

$\{x\,\text{Csch}[a+b\,x],\ x,\ 4,\ 0\}$

$$-\frac{2\,x\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{\text{PolyLog}\left[2,\ -e^{a+b\,x}\right]}{b^2}+\frac{\text{PolyLog}\left[2,\ e^{a+b\,x}\right]}{b^2}$$

$$\frac{1}{b^2}\left(a\,\text{Log}\left[1-e^{-a-b\,x}\right]+b\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]-a\,\text{Log}\left[1+e^{-a-b\,x}\right]-\right.$$
$$\left.b\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]-a\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+\text{PolyLog}\left[2,\ -e^{-a-b\,x}\right]-\text{PolyLog}\left[2,\ e^{-a-b\,x}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$\left\{x^2\,\text{Csch}[a+b\,x]^2,\ x,\ 5,\ 0\right\}$

$$-\frac{x^2}{b}-\frac{x^2\,\text{Coth}[a+b\,x]}{b}+\frac{2\,x\,\text{Log}\left[1-e^{2\,a+2\,b\,x}\right]}{b^2}+\frac{\text{PolyLog}\left[2,\ e^{2\,a+2\,b\,x}\right]}{b^3}$$

$$\frac{1}{b^3}\,\text{Csch}[a]\left(-b^2\,e^{-\text{ArcTanh}[\text{Tanh}[a]]}\,x^2\,\text{Cosh}[a]\,\sqrt{\text{Sech}[a]^2}+i\,b\,\pi\,x\,\text{Sinh}[a]-\right.$$
$$i\,\pi\,\text{Log}\left[1+e^{2\,b\,x}\right]\text{Sinh}[a]+2\,b\,x\,\text{Log}\left[1-e^{-2\,(b\,x+\text{ArcTanh}[\text{Tanh}[a]])}\right]\text{Sinh}[a]+i\,\pi\,\text{Log}[\text{Cosh}[b\,x]]\,\text{Sinh}[a]+$$
$$2\,\text{ArcTanh}[\text{Tanh}[a]]\left(b\,x+\text{Log}\left[1-e^{-2\,(b\,x+\text{ArcTanh}[\text{Tanh}[a]])}\right]-\text{Log}[i\,\text{Sinh}[b\,x+\text{ArcTanh}[\text{Tanh}[a]]]]\right)\text{Sinh}[a]-$$
$$\left.\text{PolyLog}\left[2,\ e^{-2\,(b\,x+\text{ArcTanh}[\text{Tanh}[a]])}\right]\text{Sinh}[a]+b^2\,x^2\,\text{Csch}[a+b\,x]\,\text{Sinh}[b\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$\left\{x\,\text{Csch}[a+b\,x]^3,\ x,\ 5,\ 0\right\}$

$$\frac{x\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{\text{Csch}[a+b\,x]}{2\,b^2}-\frac{x\,\text{Coth}[a+b\,x]\,\text{Csch}[a+b\,x]}{2\,b}+\frac{\text{PolyLog}\left[2,\ -e^{a+b\,x}\right]}{2\,b^2}-\frac{\text{PolyLog}\left[2,\ e^{a+b\,x}\right]}{2\,b^2}$$

$$\frac{1}{8\,b^2}\left(-b\,x\,\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]^2-4\,a\,\text{Log}\left[1-e^{-a-b\,x}\right]-4\,b\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]+4\,a\,\text{Log}\left[1+e^{-a-b\,x}\right]+\right.$$
$$4\,b\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]+4\,a\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-4\,\text{PolyLog}\left[2,\ -e^{-a-b\,x}\right]+4\,\text{PolyLog}\left[2,\ e^{-a-b\,x}\right]-$$
$$\left.b\,x\,\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]^2+2\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]+2\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$\{(c+d\,x)\,\text{Csch}[a+b\,x],\ x,\ 5,\ 0\}$

$$-\frac{2\,(c+d\,x)\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{d\,\text{PolyLog}\left[2,\ -e^{a+b\,x}\right]}{b^2}+\frac{d\,\text{PolyLog}\left[2,\ e^{a+b\,x}\right]}{b^2}$$

$$\frac{1}{b^2}\left(a\,d\,\text{Log}\left[1-e^{-a-b\,x}\right]+b\,d\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]-a\,d\,\text{Log}\left[1+e^{-a-b\,x}\right]-b\,d\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]-b\,c\,\text{Log}\left[2\,\text{Cosh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+b\,c\,\text{Log}\left[2\,\text{Sinh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-a\,d\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+d\,\text{PolyLog}\left[2,\,-e^{-a-b\,x}\right]-d\,\text{PolyLog}\left[2,\,e^{-a-b\,x}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(c+d\,x)^2\,\text{Csch}[a+b\,x]^2,\,x,\,6,\,0\right\}$$

$$-\frac{(c+d\,x)^2}{b}-\frac{(c+d\,x)^2\,\text{Coth}[a+b\,x]}{b}+\frac{2\,d\,(c+d\,x)\,\text{Log}\left[1-e^{2\,a+2\,b\,x}\right]}{b^2}+\frac{d^2\,\text{PolyLog}\left[2,\,e^{2\,a+2\,b\,x}\right]}{b^3}$$

$$\frac{1}{b^3}\,\text{Csch}[a]\left(-2\,b\,c\,d\,(b\,x\,\text{Cosh}[a]-\text{Log}[\text{Sinh}[a+b\,x]]\,\text{Sinh}[a])+b^2\,(c+d\,x)^2\,\text{Csch}[a+b\,x]\,\text{Sinh}[b\,x]+d^2\,e^{-\text{ArcTanh}[\text{Tanh}[a]]}\,\text{Cosh}[a]\left(-b^2\,x^2\,\sqrt{\text{Sech}[a]^2}+i\,b\,e^{\text{ArcTanh}[\text{Tanh}[a]]}\,\pi\,x\,\text{Tanh}[a]-i\,e^{\text{ArcTanh}[\text{Tanh}[a]]}\,\pi\,\text{Log}\left[1+e^{2\,b\,x}\right]\text{Tanh}[a]+2\,b\,e^{\text{ArcTanh}[\text{Tanh}[a]]}\,x\,\text{Log}\left[1-e^{-2\,(b\,x+\text{ArcTanh}[\text{Tanh}[a]])}\right]\text{Tanh}[a]+i\,e^{\text{ArcTanh}[\text{Tanh}[a]]}\,\pi\,\text{Log}[\text{Cosh}[b\,x]]\,\text{Tanh}[a]+2\,e^{\text{ArcTanh}[\text{Tanh}[a]]}\,\text{ArcTanh}[\text{Tanh}[a]]\left(b\,x+\text{Log}\left[1-e^{-2\,(b\,x+\text{ArcTanh}[\text{Tanh}[a]])}\right]-\text{Log}[i\,\text{Sinh}[b\,x+\text{ArcTanh}[\text{Tanh}[a]]]]\right)\text{Tanh}[a]-e^{\text{ArcTanh}[\text{Tanh}[a]]}\,\text{PolyLog}\left[2,\,e^{-2\,(b\,x+\text{ArcTanh}[\text{Tanh}[a]])}\right]\text{Tanh}[a]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(c+d\,x)\,\text{Csch}[a+b\,x]^3,\,x,\,6,\,0\right\}$$

$$\frac{(c+d\,x)\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{d\,\text{Csch}[a+b\,x]}{2\,b^2}-\frac{(c+d\,x)\,\text{Coth}[a+b\,x]\,\text{Csch}[a+b\,x]}{2\,b}+\frac{d\,\text{PolyLog}\left[2,\,-e^{a+b\,x}\right]}{2\,b^2}-\frac{d\,\text{PolyLog}\left[2,\,e^{a+b\,x}\right]}{2\,b^2}$$

$$-\frac{1}{8\,b^2}\left(b\,c\,\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]^2+b\,d\,x\,\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]^2+4\,a\,d\,\text{Log}\left[1-e^{-a-b\,x}\right]+4\,b\,d\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]-4\,a\,d\,\text{Log}\left[1+e^{-a-b\,x}\right]-4\,b\,d\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]-4\,b\,c\,\text{Log}\left[\text{Cosh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+4\,b\,c\,\text{Log}\left[\text{Sinh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-4\,a\,d\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+4\,d\,\text{PolyLog}\left[2,\,-e^{-a-b\,x}\right]-4\,d\,\text{PolyLog}\left[2,\,e^{-a-b\,x}\right]+b\,c\,\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]^2+b\,d\,x\,\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]^2-2\,d\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]-2\,d\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(c+d\,x)^2\,\text{Csch}[a+b\,x]^3,\,x,\,9,\,0\right\}$$

$$-\frac{d^2\,\text{ArcCoth}[\text{Cosh}[a+b\,x]]}{b^3}+\frac{(c+d\,x)^2\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{d\,(c+d\,x)\,\text{Csch}[a+b\,x]}{b^2}-\frac{(c+d\,x)^2\,\text{Coth}[a+b\,x]\,\text{Csch}[a+b\,x]}{2\,b}+\frac{d\,(c+d\,x)\,\text{PolyLog}\left[2,\,-e^{a+b\,x}\right]}{b^2}-\frac{d\,(c+d\,x)\,\text{PolyLog}\left[2,\,e^{a+b\,x}\right]}{b^2}-\frac{d^2\,\text{PolyLog}\left[3,\,-e^{a+b\,x}\right]}{b^3}+\frac{d^2\,\text{PolyLog}\left[3,\,e^{a+b\,x}\right]}{b^3}$$

$$-\frac{1}{8\,b^3}\left(8\,b\,d\,(c+d\,x)\,\text{Csch}[a]+b^2\,(c+d\,x)^2\,\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]^2-4\left(-2\,b^2\,c\,d\,x\,\text{Log}\left[1-e^{a+b\,x}\right]-b^2\,d^2\,x^2\,\text{Log}\left[1-e^{a+b\,x}\right]-b^2\,c^2\,\text{Log}\left[-1+e^{a+b\,x}\right]+2\,d^2\,\text{Log}\left[-1+e^{a+b\,x}\right]+b^2\,c^2\,\text{Log}\left[1+e^{a+b\,x}\right]-2\,d^2\,\text{Log}\left[1+e^{a+b\,x}\right]+2\,b^2\,c\,d\,x\,\text{Log}\left[1+e^{a+b\,x}\right]+b^2\,d^2\,x^2\,\text{Log}\left[1+e^{a+b\,x}\right]+2\,b\,d\,(c+d\,x)\,\text{PolyLog}\left[2,\,-e^{a+b\,x}\right]-2\,b\,d\,(c+d\,x)\,\text{PolyLog}\left[2,\,e^{a+b\,x}\right]-2\,d^2\,\text{PolyLog}\left[3,\,-e^{a+b\,x}\right]+2\,d^2\,\text{PolyLog}\left[3,\,e^{a+b\,x}\right]\right)+b^2\,(c+d\,x)^2\,\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]^2-4\,b\,d\,(c+d\,x)\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]-4\,b\,d\,(c+d\,x)\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{-\text{Csch}[x]^2}\,,\ x,\ 2,\ 0\right\}$$

$$\text{ArcCsc}[\text{Tanh}[x]]$$

$$\sqrt{-\text{Csch}[x]^2}\ \left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\text{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a\,\text{Csch}[x]^2}\,,\ x,\ 2,\ 0\right\}$$

$$-\text{ArcCoth}[\text{Cosh}[x]]\,\sqrt{a\,\text{Csch}[x]^2}\ \text{Sinh}[x]$$

$$\sqrt{a\,\text{Csch}[x]^2}\ \left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)\text{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a+i\,a\,\text{Csch}[x]}},\ x,\ 1,\ 0\right\}$$

$$-\frac{\left(\sqrt{2}\ \text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{a}}{\sqrt{-a+i\,a\,\text{Csch}[x]}}\right]+2\,\text{ArcTan}\left[\frac{\sqrt{-a+i\,a\,\text{Csch}[x]}}{\sqrt{a}}\right]\right)\sqrt{-a+i\,a\,\text{Csch}[x]}\ \sqrt{a+i\,a\,\text{Csch}[x]}\ \text{Tanh}[x]}{a^{3/2}}$$

$$\left(\sqrt{a}\ \text{Coth}[x]\left(\sqrt{2}\ \text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{a}}{\sqrt{i\,a\,(i+\text{Csch}[x])}}\right]-i\left(\text{Log}\left[\frac{2\,i\,a\left(2\sqrt{a}+i\sqrt{i\,a\,(i+\text{Csch}[x])}+\sqrt{a+i\,a\,\text{Csch}[x]}\right)}{\sqrt{a}+\sqrt{a+i\,a\,\text{Csch}[x]}}\right]+\right.\right.\right.$$

$$\left.\left.\left.\text{Log}\left[\frac{4\,i\,a^{3/2}-2\,a\left(\sqrt{i\,a\,(i+\text{Csch}[x])}+i\sqrt{a+i\,a\,\text{Csch}[x]}\right)}{-\sqrt{a}+\sqrt{a+i\,a\,\text{Csch}[x]}}\right]\right)\right)\Big/\left(\sqrt{i\,a\,(i+\text{Csch}[x])}\ \sqrt{a+i\,a\,\text{Csch}[x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a-i\,a\,\text{Csch}[x]}},\ x,\ 1,\ 0\right\}$$

$$-\frac{\left(\sqrt{2}\ \text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{a}}{\sqrt{-a-i\,a\,\text{Csch}[x]}}\right]+2\,\text{ArcTan}\left[\frac{\sqrt{-a-i\,a\,\text{Csch}[x]}}{\sqrt{a}}\right]\right)\sqrt{-a-i\,a\,\text{Csch}[x]}\ \sqrt{a-i\,a\,\text{Csch}[x]}\ \text{Tanh}[x]}{a^{3/2}}$$

$$\left(\sqrt{a}\ \text{Coth}[x]\left(\sqrt{2}\ \text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{a}}{\sqrt{-i\,a\,(-i+\text{Csch}[x])}}\right]-i\left(\text{Log}\left[\frac{2\,i\,a\left(2\sqrt{a}+i\sqrt{-i\,a\,(-i+\text{Csch}[x])}+\sqrt{a-i\,a\,\text{Csch}[x]}\right)}{\sqrt{a}+\sqrt{a-i\,a\,\text{Csch}[x]}}\right]+\right.\right.\right.$$

$$\left.\left.\left.\text{Log}\left[\frac{4\,i\,a^{3/2}-2\,a\left(\sqrt{-i\,a\,(-i+\text{Csch}[x])}+i\sqrt{a-i\,a\,\text{Csch}[x]}\right)}{-\sqrt{a}+\sqrt{a-i\,a\,\text{Csch}[x]}}\right]\right)\right)\Big/\left(\sqrt{a\,(-1-i\,\text{Csch}[x])}\ \sqrt{a-i\,a\,\text{Csch}[x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{a+b\,\text{Csch}[x],\ x,\ 2,\ 0\}$$

$$a\,x-b\,\text{ArcCoth}[\text{Cosh}[x]]$$

$$a\,x - b\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right] + b\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + b\,\text{Csch}[x])^2,\ x,\ 4,\ 0\right\}$$

$$a^2\,x - 2\,a\,b\,\text{ArcCoth}[\text{Cosh}[x]] - b^2\,\text{Coth}[x]$$

$$\frac{1}{2}\left(-b^2\,\text{Coth}\left[\frac{x}{2}\right] + 2\,a\left(a\,x - 2\,b\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right] + 2\,b\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right) - b^2\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a + b\,\text{Csch}[x])^3,\ x,\ 6,\ 0\right\}$$

$$a^3\,x - 3\,a^2\,b\,\text{ArcCoth}[\text{Cosh}[x]] + \frac{1}{2}\,b^3\,\text{ArcCoth}[\text{Cosh}[x]] - 3\,a\,b^2\,\text{Coth}[x] - \frac{1}{2}\,b^3\,\text{Coth}[x]\,\text{Csch}[x]$$

$$\frac{1}{8}\left(8\,a^3\,x - 12\,a\,b^2\,\text{Coth}\left[\frac{x}{2}\right] - b^3\,\text{Csch}\left[\frac{x}{2}\right]^2 - 24\,a^2\,b\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right] + 4\,b^3\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right] + 24\,a^2\,b\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right] - 4\,b^3\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right] - b^3\,\text{Sech}\left[\frac{x}{2}\right]^2 - 12\,a\,b^2\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{3 + 5\,i\,\text{Csch}[x]},\ x,\ 3,\ 0\right\}$$

$$\frac{x}{3} - \frac{5}{6}\,i\,\text{ArcTan}\left[\frac{1}{4}\left(3 - 5\,i\,\text{Tanh}\left[\frac{x}{2}\right]\right)\right]$$

$$\frac{1}{24}\left(8\,x + 10\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right] - 2\,\text{Sinh}\left[\frac{x}{2}\right]}{2\,\text{Cosh}\left[\frac{x}{2}\right] - \text{Sinh}\left[\frac{x}{2}\right]}\right] - 10\,i\,\text{ArcTan}\left[\frac{2\,\text{Cosh}\left[\frac{x}{2}\right] + \text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right] + 2\,\text{Sinh}\left[\frac{x}{2}\right]}\right] + 5\,\text{Log}[5\,\text{Cosh}[x] - 4\,\text{Sinh}[x]] - 5\,\text{Log}[5\,\text{Cosh}[x] + 4\,\text{Sinh}[x]]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{1 - \text{Csch}[x]^2},\ x,\ 4,\ 0\right\}$$

$$\text{ArcSin}\left[\frac{\text{Coth}[x]}{\sqrt{2}}\right] + \text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{2 - \text{Coth}[x]^2}}\right]$$

$$\frac{\sqrt{2 - 2\,\text{Csch}[x]^2}\left(\text{ArcTan}\left[\frac{\sqrt{2}\,\text{Cosh}[x]}{\sqrt{-3 + \text{Cosh}[2\,x]}}\right] + \text{Log}\left[\sqrt{2}\,\text{Cosh}[x] + \sqrt{-3 + \text{Cosh}[2\,x]}\right]\right)\text{Sinh}[x]}{\sqrt{-3 + \text{Cosh}[2\,x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{-1 + \text{Csch}[x]^2},\ x,\ 4,\ 0\right\}$$

$$-\text{ArcTan}\left[\frac{\text{Coth}[x]}{\sqrt{-2 + \text{Coth}[x]^2}}\right] - \text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{-2 + \text{Coth}[x]^2}}\right]$$

$$\frac{\sqrt{2}\,\sqrt{-1+\text{Csch}[x]^2}\,\left(\text{ArcTan}\left[\frac{\sqrt{2}\,\text{Cosh}[x]}{\sqrt{-3+\text{Cosh}[2x]}}\right]+\text{Log}\left[\sqrt{2}\,\text{Cosh}[x]+\sqrt{-3+\text{Cosh}[2x]}\,\right]\right)\text{Sinh}[x]}{\sqrt{-3+\text{Cosh}[2x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Csch}[x]^2},\,x,\,4,\,0\right\}$$

$$\sqrt{a}\,\text{ArcTanh}\left[\frac{\sqrt{a}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Csch}[x]^2}}\right]-\sqrt{b}\,\text{ArcTanh}\left[\frac{\sqrt{b}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Csch}[x]^2}}\right]$$

$$\frac{\sqrt{a+b\,\text{Csch}[x]^2}\,\left(-\sqrt{b}\,\text{ArcTanh}\left[\frac{\sqrt{2}\,\sqrt{b}\,\text{Cosh}[x]}{\sqrt{-a+2b+a\,\text{Cosh}[2x]}}\right]+\sqrt{a}\,\text{Log}\left[\sqrt{2}\,\sqrt{a}\,\text{Cosh}[x]+\sqrt{-a+2b+a\,\text{Cosh}[2x]}\,\right]\right)\text{Sinh}[x]}{\sqrt{-\frac{a}{2}+b+\frac{1}{2}a\,\text{Cosh}[2x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{1-\text{Csch}[x]^2}},\,x,\,2,\,0\right\}$$

$$\text{ArcTanh}\left[\frac{\text{Coth}[x]}{\sqrt{2-\text{Coth}[x]^2}}\right]$$

$$\frac{\sqrt{-3+\text{Cosh}[2x]}\,\text{Csch}[x]\,\text{Log}\left[\sqrt{2}\,\text{Cosh}[x]+\sqrt{-3+\text{Cosh}[2x]}\,\right]}{\sqrt{2-2\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{-1+\text{Csch}[x]^2}},\,x,\,2,\,0\right\}$$

$$\text{ArcTan}\left[\frac{\text{Coth}[x]}{\sqrt{-2+\text{Coth}[x]^2}}\right]$$

$$\frac{\sqrt{-3+\text{Cosh}[2x]}\,\text{Csch}[x]\,\text{Log}\left[\sqrt{2}\,\text{Cosh}[x]+\sqrt{-3+\text{Cosh}[2x]}\,\right]}{\sqrt{2}\,\sqrt{-1+\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a+b\,\text{Csch}[x]^2}},\,x,\,2,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Csch}[x]^2}}\right]}{\sqrt{a}}$$

$$\frac{\sqrt{-a+2b+a\,\text{Cosh}[2x]}\,\text{Csch}[x]\,\text{Log}\left[\sqrt{2}\,\sqrt{a}\,\text{Cosh}[x]+\sqrt{-a+2b+a\,\text{Cosh}[2x]}\,\right]}{\sqrt{2}\,\sqrt{a}\,\sqrt{a+b\,\text{Csch}[x]^2}}$$

Incorrect antiderivative:

$$\left\{\text{Csch}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(-2+p)}\right]^p,\ x,\ 1,\ 0\right\}$$

$$-\frac{(2-p)\,x\,\text{Csch}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-2+p}}{1-p}-\frac{(2-p)\,x\,\text{Cosh}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]\text{Csch}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-1+p}}{1-p}$$

$$\frac{2^{-1+p}\,e^{-\frac{4a}{-2+p}}\,(-2+p)\,x\left(e^{\frac{4a}{-2+p}}-e^{\frac{2ap}{-2+p}}\,(c\,x^n)^{\frac{2}{n(-2+p)}}\right)\left(\frac{e^{\frac{a(2+p)}{-2+p}}\,(c\,x^n)^{\frac{1}{n(-2+p)}}}{-e^{\frac{4a}{-2+p}}+e^{\frac{2ap}{-2+p}}\,(c\,x^n)^{\frac{2}{n(-2+p)}}}\right)^p}{-1+p}$$

Incorrect antiderivative:

$$\left\{\text{Csch}\left[a-\frac{\text{Log}[c\,x^n]}{n\,(-2+p)}\right]^p,\ x,\ 1,\ 0\right\}$$

$$-\frac{(2-p)\,x\,\text{Csch}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-2+p}}{1-p}+\frac{(2-p)\,x\,\text{Cosh}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]\text{Csch}\left[a+\frac{\text{Log}[c\,x^n]}{n\,(2-p)}\right]^{-1+p}}{1-p}$$

$$\frac{2^{-1+p}\,e^{-\frac{2ap}{-2+p}}\,(-2+p)\,x\left(e^{\frac{2ap}{-2+p}}-e^{\frac{4a}{-2+p}}\,(c\,x^n)^{\frac{2}{n(-2+p)}}\right)\left(-\frac{e^{\frac{a(2+p)}{-2+p}}\,(c\,x^n)^{\frac{1}{n(-2+p)}}}{-e^{\frac{2ap}{-2+p}}+e^{\frac{4a}{-2+p}}\,(c\,x^n)^{\frac{2}{n(-2+p)}}}\right)^p}{-1+p}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[a+b\,\text{Log}[c\,x^n]]}{x},\ x,\ 2,\ 0\right\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[a+b\,\text{Log}[c\,x^n]]]}{b\,n}$$

$$\frac{-\text{Log}\left[2\,\text{Cosh}\left[\frac{1}{2}\,(a+b\,\text{Log}[c\,x^n])\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{1}{2}\,(a+b\,\text{Log}[c\,x^n])\right]\right]}{b\,n}$$

Problems involving two hyperbolic functions

Valid but unnecessarily complicated antiderivative:

$$\{\text{Csch}[a+b\,x]\,\text{Sech}[a+b\,x],\ x,\ 1,\ 0\}$$

$$\frac{\text{Log}[\text{Tanh}[a+b\,x]]}{b}$$

$$\frac{-\text{Log}[2\,\text{Cosh}[a+b\,x]]+\text{Log}[2\,\text{Sinh}[a+b\,x]]}{b}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Sinh}[a+b\,x]}}{\sqrt{\text{Cosh}[a+b\,x]}},\ x,\ 4,\ 0\right\}$$

$$-\frac{\text{ArcTan}\left[\frac{\sqrt{\text{Sinh}[a+b\,x]}}{\sqrt{\text{Cosh}[a+b\,x]}}\right]}{b}+\frac{\text{ArcTanh}\left[\frac{\sqrt{\text{Sinh}[a+b\,x]}}{\sqrt{\text{Cosh}[a+b\,x]}}\right]}{b}$$

$$-\frac{2\sqrt{\text{Cosh}[a+b\,x]}\ \text{Hypergeometric2F1}\left[\frac{1}{4},\ \frac{1}{4},\ \frac{5}{4},\ \text{Cosh}[a+b\,x]^2\right]\text{Sinh}[a+b\,x]^{3/2}}{b\left(-\text{Sinh}[a+b\,x]^2\right)^{3/4}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\sqrt{\text{Cosh}[a+b\,x]}}{\sqrt{\text{Sinh}[a+b\,x]}},\ x,\ 4,\ 0\right\}$$

$$-\frac{\text{ArcTan}\left[\frac{\sqrt{\text{Cosh}[a+b\,x]}}{\sqrt{\text{Sinh}[a+b\,x]}}\right]}{b}+\frac{\text{ArcTanh}\left[\frac{\sqrt{\text{Cosh}[a+b\,x]}}{\sqrt{\text{Sinh}[a+b\,x]}}\right]}{b}$$

$$-\frac{2\,\text{Cosh}[a+b\,x]^{3/2}\,\text{Hypergeometric2F1}\left[\frac{3}{4},\ \frac{3}{4},\ \frac{7}{4},\ \text{Cosh}[a+b\,x]^2\right]\sqrt{\text{Sinh}[a+b\,x]}}{3\,b\left(-\text{Sinh}[a+b\,x]^2\right)^{1/4}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sinh}[a+b\,x]^{1/3}}{\text{Cosh}[a+b\,x]^{1/3}},\ x,\ 6,\ 0\right\}$$

$$-\frac{\sqrt{3}\ \text{ArcTan}\left[\frac{1+\frac{2\,\text{Sinh}[a+b\,x]^{2/3}}{\text{Cosh}[a+b\,x]^{2/3}}}{\sqrt{3}}\right]}{2\,b}-\frac{\text{Log}\left[1-\frac{\text{Sinh}[a+b\,x]^{2/3}}{\text{Cosh}[a+b\,x]^{2/3}}\right]}{2\,b}+\frac{\text{Log}\left[1+\frac{\text{Sinh}[a+b\,x]^{2/3}}{\text{Cosh}[a+b\,x]^{2/3}}+\frac{\text{Sinh}[a+b\,x]^{4/3}}{\text{Cosh}[a+b\,x]^{4/3}}\right]}{4\,b}$$

$$-\frac{3\,\text{Cosh}[a+b\,x]^{2/3}\,\text{Hypergeometric2F1}\left[\frac{1}{3},\ \frac{1}{3},\ \frac{4}{3},\ \text{Cosh}[a+b\,x]^2\right]\text{Sinh}[a+b\,x]^{4/3}}{2\,b\left(-\text{Sinh}[a+b\,x]^2\right)^{2/3}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cosh}[a+b\,x]^{1/3}}{\text{Sinh}[a+b\,x]^{1/3}},\ x,\ 6,\ 0\right\}$$

$$-\frac{\sqrt{3}\ \text{ArcTan}\left[\frac{1+\frac{2\,\text{Cosh}[a+b\,x]^{2/3}}{\text{Sinh}[a+b\,x]^{2/3}}}{\sqrt{3}}\right]}{2\,b}-\frac{\text{Log}\left[1-\frac{\text{Cosh}[a+b\,x]^{2/3}}{\text{Sinh}[a+b\,x]^{2/3}}\right]}{2\,b}+\frac{\text{Log}\left[1+\frac{\text{Cosh}[a+b\,x]^{4/3}}{\text{Sinh}[a+b\,x]^{4/3}}+\frac{\text{Cosh}[a+b\,x]^{2/3}}{\text{Sinh}[a+b\,x]^{2/3}}\right]}{4\,b}$$

$$-\frac{3\,\text{Cosh}[a+b\,x]^{4/3}\,\text{Hypergeometric2F1}\left[\frac{2}{3},\ \frac{2}{3},\ \frac{5}{3},\ \text{Cosh}[a+b\,x]^2\right]\text{Sinh}[a+b\,x]^{2/3}}{4\,b\left(-\text{Sinh}[a+b\,x]^2\right)^{1/3}}$$

Unable to integrate:

$$\left\{\text{Sech}[a+b\,x]^4\,\text{Tanh}[a+b\,x]^n,\ x,\ 3,\ 0\right\}$$

$$\frac{\text{Tanh}[a+b\,x]^{1+n}}{b\,(1+n)}-\frac{\text{Tanh}[a+b\,x]^{3+n}}{b\,(3+n)}$$

$$\int\text{Sech}[a+b\,x]^4\,\text{Tanh}[a+b\,x]^n\,\mathbb{d}x$$

Unable to integrate:

$$\left\{\text{Coth}[x]^n\,\text{Csch}[x]^4,\ x,\ 3,\ 0\right\}$$

$$\frac{\text{Coth}[x]^{1+n}}{1+n}-\frac{\text{Coth}[x]^{3+n}}{3+n}$$

$$\int\text{Coth}[x]^n\,\text{Csch}[x]^4\,\mathbb{d}x$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Coth}[x]^4\,\text{Csch}[x]^3,\ x,\ 4,\ 0\right\}$$

$$\frac{1}{16}\,\text{ArcCoth}[\text{Cosh}[x]]+\frac{1}{16}\,\text{Coth}[x]\,\text{Csch}[x]+\frac{1}{24}\,\text{Coth}[x]^3\,\text{Csch}[x]-\frac{1}{6}\,\text{Coth}[x]^5\,\text{Csch}[x]$$

$$\frac{1}{384}\left(-6\,\text{Csch}\left[\frac{x}{2}\right]^2-6\,\text{Csch}\left[\frac{x}{2}\right]^4-\text{Csch}\left[\frac{x}{2}\right]^6+24\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-24\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-6\,\text{Sech}\left[\frac{x}{2}\right]^2+6\,\text{Sech}\left[\frac{x}{2}\right]^4-\text{Sech}\left[\frac{x}{2}\right]^6\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Cosh}[a+b\,x]^{3/2}\,\text{Sinh}[a+b\,x],\ x,\ 3,\ 0\right\}$$

$$\frac{2\,x\,\text{Cosh}[a+b\,x]^{5/2}}{5\,b}+\frac{12\,i\,\text{EllipticE}\left[\frac{1}{2}\,i\,(a+b\,x),\ 2\right]}{25\,b^2}-\frac{4\,\text{Cosh}[a+b\,x]^{3/2}\,\text{Sinh}[a+b\,x]}{25\,b^2}$$

$$\frac{1}{25\,b^2\sqrt{\text{Cosh}[a+b\,x]}}\left(\text{Cosh}[a+b\,x]\right.$$
$$(5\,b\,x-12\,\text{Coth}[a]-2\,\text{Cosh}[2\,b\,x]\,\text{Sinh}[2\,a]+\text{Cosh}[2\,a]\,(5\,b\,x\,\text{Cosh}[2\,b\,x]-2\,\text{Sinh}[2\,b\,x])+5\,b\,x\,\text{Sinh}[2\,a]\,\text{Sinh}[2\,b\,x])+$$
$$\frac{1}{\sqrt{1+\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]}}\,\text{Csch}\left[\frac{a}{2}\right]\,\text{Sech}\left[\frac{a}{2}\right]$$
$$\left(6\,\text{Cosh}[a+b\,x]\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\ \frac{1}{2},\ \frac{3}{4},\ -\text{Cosh}[2\,(a+b\,x)]-\text{Sinh}[2\,(a+b\,x)]\right](\text{Cosh}[a]+\text{Sinh}[a])+\right.$$
$$\text{Hypergeometric2F1}\left[\frac{1}{2},\ \frac{3}{4},\ \frac{7}{4},\ -\text{Cosh}[2\,(a+b\,x)]-\text{Sinh}[2\,(a+b\,x)]\right]$$
$$\left.\left.(\text{Cosh}[b\,x]+\text{Sinh}[b\,x])\,(1+\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)])\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x \sinh[a+bx]}{\sqrt{\cosh[a+bx]}}, x, 2, 0\right\}$$

$$\frac{2x\sqrt{\cosh[a+bx]}}{b}+\frac{4i\,\text{EllipticE}\left[\frac{1}{2}i(a+bx),2\right]}{b^2}$$

$$\frac{1}{3b^2\sqrt{\cosh[a+bx]}}\left(6\cosh[a+bx]\,\text{Csch}[a](-2\cosh[a]+bx\sinh[a])+\frac{1}{\sqrt{1+\cosh[2(a+bx)]+\sinh[2(a+bx)]}}\text{Csch}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{a}{2}\right]\right.$$
$$\left(6\cosh[a+bx]\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-\cosh[2(a+bx)]-\sinh[2(a+bx)]\right](\cosh[a]+\sinh[a])+\right.$$
$$\left.\left.\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-\cosh[2(a+bx)]-\sinh[2(a+bx)]\right]\right.\right.$$
$$\left.\left.(\cosh[bx]+\sinh[bx])(1+\cosh[2(a+bx)]+\sinh[2(a+bx)])\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x \sinh[a+bx]}{\cosh[a+bx]^{5/2}}, x, 3, 0\right\}$$

$$-\frac{2x}{3b\cosh[a+bx]^{3/2}}+\frac{4i\,\text{EllipticE}\left[\frac{1}{2}i(a+bx),2\right]}{3b^2}+\frac{4\sinh[a+bx]}{3b^2\sqrt{\cosh[a+bx]}}$$

$$\frac{1}{9b^2\cosh[a+bx]^{3/2}}\left(-6\,\text{Csch}[a](\cosh[a]+\cosh[a+2bx]+bx\sinh[a])+\frac{1}{\sqrt{1+\cosh[2(a+bx)]+\sinh[2(a+bx)]}}\cosh[a+bx]\,\text{Csch}\left[\frac{a}{2}\right]\right.$$
$$\text{Sech}\left[\frac{a}{2}\right]\left(6\cosh[a+bx]\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-\cosh[2(a+bx)]-\sinh[2(a+bx)]\right](\cosh[a]+\sinh[a])+\right.$$
$$\left.\left.\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},-\cosh[2(a+bx)]-\sinh[2(a+bx)]\right]\right.\right.$$
$$\left.\left.(\cosh[bx]+\sinh[bx])(1+\cosh[2(a+bx)]+\sinh[2(a+bx)])\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\cosh[a+bx]\sinh[a+bx]^{3/2}, x, 4, 0\right\}$$

$$\frac{12i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}i(a+bx),2\right]\sqrt{\sinh[a+bx]}}{25b^2\sqrt{i\sinh[a+bx]}}-\frac{4\cosh[a+bx]\sinh[a+bx]^{3/2}}{25b^2}+\frac{2x\sinh[a+bx]^{5/2}}{5b}$$

$$\frac{1}{100\,b^2\sqrt{\text{Sinh}[a+b\,x]}}\,\text{Sech}[a]\left(24\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]\right](\text{Cosh}[b\,x]-\text{Sinh}[b\,x])\right.$$
$$\sqrt{1-\text{Cosh}[2\,a+2\,b\,x]-\text{Sinh}[2\,a+2\,b\,x]}+8\,\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]\right]$$
$$(\text{Cosh}[b\,x]+\text{Sinh}[b\,x])\sqrt{1-\text{Cosh}[2\,a+2\,b\,x]-\text{Sinh}[2\,a+2\,b\,x]}+2\,\text{Sinh}[a+b\,x]$$
$$\left.(-10\,b\,x\,\text{Cosh}[a]+5\,b\,x\,\text{Cosh}[a+2\,b\,x]+5\,b\,x\,\text{Cosh}[3\,a+2\,b\,x]+24\,\text{Sinh}[a]-2\,\text{Sinh}[a+2\,b\,x]-2\,\text{Sinh}[3\,a+2\,b\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x\,\text{Cosh}[a+b\,x]}{\sqrt{\text{Sinh}[a+b\,x]}},\,x,\,3,\,0\right\}$$

$$\frac{2\,x\sqrt{\text{Sinh}[a+b\,x]}}{b}-\frac{4\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}\,i\,(a+b\,x),\,2\right]\sqrt{\text{Sinh}[a+b\,x]}}{b^2\sqrt{i\,\text{Sinh}[a+b\,x]}}$$

$$\frac{1}{3\,b^2\sqrt{\text{Sinh}[a+b\,x]}}\,2\left(3\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]\right]\text{Sech}[a]\,(-\text{Cosh}[b\,x]+\text{Sinh}[b\,x])\right.$$
$$\sqrt{1-\text{Cosh}[2\,a+2\,b\,x]-\text{Sinh}[2\,a+2\,b\,x]}-\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]\right]$$
$$\left.\text{Sech}[a]\,(\text{Cosh}[b\,x]+\text{Sinh}[b\,x])\sqrt{1-\text{Cosh}[2\,a+2\,b\,x]-\text{Sinh}[2\,a+2\,b\,x]}+3\,\text{Sinh}[a+b\,x]\,(b\,x-2\,\text{Tanh}[a])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x\,\text{Cosh}[a+b\,x]}{\text{Sinh}[a+b\,x]^{5/2}},\,x,\,4,\,0\right\}$$

$$-\frac{2\,x}{3\,b\,\text{Sinh}[a+b\,x]^{3/2}}-\frac{4\,\text{Cosh}[a+b\,x]}{3\,b^2\sqrt{\text{Sinh}[a+b\,x]}}+\frac{4\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}\,i\,(a+b\,x),\,2\right]\sqrt{\text{Sinh}[a+b\,x]}}{3\,b^2\sqrt{i\,\text{Sinh}[a+b\,x]}}$$

$$-\frac{1}{9\,b^2\sqrt{\text{Sinh}[a+b\,x]}}\,2\,\text{Sech}[a]\left(3\,\text{Csch}[a+b\,x]\,(b\,x\,\text{Cosh}[a]+\text{Sinh}[a]+\text{Sinh}[a+2\,b\,x])+\right.$$
$$3\,\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]\right](-\text{Cosh}[b\,x]+\text{Sinh}[b\,x])$$
$$\sqrt{1-\text{Cosh}[2\,a+2\,b\,x]-\text{Sinh}[2\,a+2\,b\,x]}-\text{Hypergeometric2F1}\left[\frac{1}{2},\frac{3}{4},\frac{7}{4},\text{Cosh}[2\,(a+b\,x)]+\text{Sinh}[2\,(a+b\,x)]\right]$$
$$\left.(\text{Cosh}[b\,x]+\text{Sinh}[b\,x])\sqrt{1-\text{Cosh}[2\,a+2\,b\,x]-\text{Sinh}[2\,a+2\,b\,x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Sech}[a+b\,x]^{9/2}\,\text{Sinh}[a+b\,x],\,x,\,5,\,0\right\}$$

$$\frac{12\,i\sqrt{\text{Cosh}[a+b\,x]}\;\text{EllipticE}\left[\frac{1}{2}\,i\,(a+b\,x),\,2\right]\sqrt{\text{Sech}[a+b\,x]}}{35\,b^2}-$$
$$\frac{2\,x\,\text{Sech}[a+b\,x]^{7/2}}{7\,b}+\frac{12\sqrt{\text{Sech}[a+b\,x]}\;\text{Sinh}[a+b\,x]}{35\,b^2}+\frac{4\,\text{Sech}[a+b\,x]^{5/2}\,\text{Sinh}[a+b\,x]}{35\,b^2}$$

$$\frac{1}{70\,b^2}\left(\frac{24\sqrt{2}\;e^{-a-bx}\sqrt{\frac{e^{a+bx}}{1+e^{2(a+bx)}}}\left(1+e^{2(a+bx)}+\left(-1+e^{2a}\right)\sqrt{1+e^{2(a+bx)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2(a+bx)}\right]\right)}{-1+e^{2a}}-\right.$$

$$\left.\text{Csch}[a]\,\text{Sech}[a+bx]^{7/2}\,(9\,\text{Cosh}[a]+11\,\text{Cosh}[a+2bx]+\text{Cosh}[3a+2bx]+3\,\text{Cosh}[3a+4bx]+20\,bx\,\text{Sinh}[a])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Sech}[a+bx]^{5/2}\,\text{Sinh}[a+bx],\,x,\,4,\,0\right\}$$

$$\frac{4i\sqrt{\text{Cosh}[a+bx]}\;\text{EllipticE}\left[\frac{1}{2}i\,(a+bx),\,2\right]\sqrt{\text{Sech}[a+bx]}}{3\,b^2}-\frac{2x\,\text{Sech}[a+bx]^{3/2}}{3\,b}+\frac{4\sqrt{\text{Sech}[a+bx]}\;\text{Sinh}[a+bx]}{3\,b^2}$$

$$\frac{1}{3\,b^2}2\left(\frac{2\sqrt{2}\;e^{-a-bx}\sqrt{\frac{e^{a+bx}}{1+e^{2(a+bx)}}}\left(1+e^{2(a+bx)}+\left(-1+e^{2a}\right)\sqrt{1+e^{2(a+bx)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2(a+bx)}\right]\right)}{-1+e^{2a}}-\right.$$

$$\left.\text{Csch}[a]\,\text{Sech}[a+bx]^{3/2}\,(\text{Cosh}[a]+\text{Cosh}[a+2bx]+bx\,\text{Sinh}[a])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\sqrt{\text{Sech}[a+bx]}\;\text{Sinh}[a+bx],\,x,\,3,\,0\right\}$$

$$\frac{2x}{b\sqrt{\text{Sech}[a+bx]}}+\frac{4i\sqrt{\text{Cosh}[a+bx]}\;\text{EllipticE}\left[\frac{1}{2}i\,(a+bx),\,2\right]\sqrt{\text{Sech}[a+bx]}}{b^2}$$

$$\frac{e^{-a-bx}\left(\left(1+e^{2(a+bx)}\right)(-2+bx)+4\sqrt{1+e^{2(a+bx)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2(a+bx)}\right]\right)\sqrt{\text{Sech}[a+bx]}}{b^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x\,\text{Sinh}[a+bx]}{\text{Sech}[a+bx]^{3/2}},\,x,\,4,\,0\right\}$$

$$\frac{2x}{5\,b\,\text{Sech}[a+bx]^{5/2}}+\frac{12i\sqrt{\text{Cosh}[a+bx]}\;\text{EllipticE}\left[\frac{1}{2}i\,(a+bx),\,2\right]\sqrt{\text{Sech}[a+bx]}}{25\,b^2}-\frac{4\,\text{Sinh}[a+bx]}{25\,b^2\,\text{Sech}[a+bx]^{3/2}}$$

$$\frac{1}{100\,b^2}e^{-3(a+bx)}\left(\left(1+e^{2(a+bx)}\right)\left(2+5bx+2e^{2(a+bx)}(-12+5bx)+e^{4(a+bx)}(-2+5bx)\right)+\right.$$

$$\left.48\,e^{2(a+bx)}\sqrt{1+e^{2(a+bx)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\frac{1}{2},\frac{3}{4},-e^{2(a+bx)}\right]\right)\sqrt{\text{Sech}[a+bx]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Cosh}[a+bx]\,\text{Csch}[a+bx]^{9/2},\,x,\,6,\,0\right\}$$

$$\frac{12\,\text{Cosh}[a+b\,x]\,\sqrt{\text{Csch}[a+b\,x]}}{35\,b^2}-\frac{4\,\text{Cosh}[a+b\,x]\,\text{Csch}[a+b\,x]^{5/2}}{35\,b^2}-\frac{2\,x\,\text{Csch}[a+b\,x]^{7/2}}{7\,b}-\frac{12\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}\,i\,(a+b\,x),\,2\right]}{35\,b^2\,\sqrt{\text{Csch}[a+b\,x]}\,\sqrt{i\,\text{Sinh}[a+b\,x]}}$$

$$\frac{1}{70\,b^2}\left(-\frac{24\,\sqrt{2}\;e^{-a-b\,x}\sqrt{\frac{e^{a+b\,x}}{-1+e^{2\,(a+b\,x)}}}\;\left(-1+e^{2\,(a+b\,x)}+\left(1+e^{2\,a}\right)\sqrt{1-e^{2\,(a+b\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,e^{2\,(a+b\,x)}\right]\right)}{1+e^{2\,a}}+\right.$$

$$\left.\text{Csch}[a+b\,x]^{7/2}\,\text{Sech}[a]\,(-20\,b\,x\,\text{Cosh}[a]-9\,\text{Sinh}[a]-11\,\text{Sinh}[a+2\,b\,x]+\text{Sinh}[3\,a+2\,b\,x]+3\,\text{Sinh}[3\,a+4\,b\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Cosh}[a+b\,x]\,\text{Csch}[a+b\,x]^{5/2},\,x,\,5,\,0\right\}$$

$$-\frac{4\,\text{Cosh}[a+b\,x]\,\sqrt{\text{Csch}[a+b\,x]}}{3\,b^2}-\frac{2\,x\,\text{Csch}[a+b\,x]^{3/2}}{3\,b}+\frac{4\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}\,i\,(a+b\,x),\,2\right]}{3\,b^2\,\sqrt{\text{Csch}[a+b\,x]}\,\sqrt{i\,\text{Sinh}[a+b\,x]}}$$

$$\frac{1}{3\,b^2}2\left(\frac{2\,\sqrt{2}\;e^{-a-b\,x}\sqrt{\frac{e^{a+b\,x}}{-1+e^{2\,(a+b\,x)}}}\;\left(-1+e^{2\,(a+b\,x)}+\left(1+e^{2\,a}\right)\sqrt{1-e^{2\,(a+b\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,e^{2\,(a+b\,x)}\right]\right)}{1+e^{2\,a}}-\right.$$

$$\left.\text{Csch}[a+b\,x]^{3/2}\,\text{Sech}[a]\,(b\,x\,\text{Cosh}[a]+\text{Sinh}[a]+\text{Sinh}[a+2\,b\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Cosh}[a+b\,x]\,\sqrt{\text{Csch}[a+b\,x]},\,x,\,4,\,0\right\}$$

$$\frac{2\,x}{b\,\sqrt{\text{Csch}[a+b\,x]}}-\frac{4\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}\,i\,(a+b\,x),\,2\right]}{b^2\,\sqrt{\text{Csch}[a+b\,x]}\,\sqrt{i\,\text{Sinh}[a+b\,x]}}$$

$$\frac{e^{-a-b\,x}\,\sqrt{\text{Csch}[a+b\,x]}\;\left(\left(-1+e^{2\,(a+b\,x)}\right)\,(-2+b\,x)-4\,\sqrt{1-e^{2\,(a+b\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,e^{2\,(a+b\,x)}\right]\right)}{b^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x\,\text{Cosh}[a+b\,x]}{\text{Csch}[a+b\,x]^{3/2}},\,x,\,5,\,0\right\}$$

$$\frac{2\,x}{5\,b\,\text{Csch}[a+b\,x]^{5/2}}-\frac{4\,\text{Cosh}[a+b\,x]}{25\,b^2\,\text{Csch}[a+b\,x]^{3/2}}+\frac{12\,i\,\text{EllipticE}\left[\frac{\pi}{4}-\frac{1}{2}\,i\,(a+b\,x),\,2\right]}{25\,b^2\,\sqrt{\text{Csch}[a+b\,x]}\,\sqrt{i\,\text{Sinh}[a+b\,x]}}$$

$$\frac{1}{100\,b^2}\,e^{-3\,(a+b\,x)}\,\sqrt{\text{Csch}[a+b\,x]}\;\left(\left(-1+e^{2\,(a+b\,x)}\right)\,\left(2+5\,b\,x+e^{2\,(a+b\,x)}\,(24-10\,b\,x)+e^{4\,(a+b\,x)}\,(-2+5\,b\,x)\right)+\right.$$

$$\left.48\,e^{2\,(a+b\,x)}\,\sqrt{1-e^{2\,(a+b\,x)}}\;\text{Hypergeometric2F1}\left[-\frac{1}{4},\,\frac{1}{2},\,\frac{3}{4},\,e^{2\,(a+b\,x)}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{x^3\,\text{Sech}[a+b\,x]^2\,\text{Tanh}[a+b\,x],\ x,\ 6,\ 0\}$$

$$\frac{3\,x^2}{2\,b^2}-\frac{3\,x\,\text{Log}\left[1+e^{2\,a+2\,b\,x}\right]}{b^3}-\frac{3\,\text{PolyLog}\left[2,\ -e^{2\,a+2\,b\,x}\right]}{2\,b^4}-\frac{x^3\,\text{Sech}[a+b\,x]^2}{2\,b}+\frac{3\,x^2\,\text{Tanh}[a+b\,x]}{2\,b^2}$$

$$-\frac{1}{2\,b^4}\,e^{-\text{ArcTanh}[\text{Coth}[a]]}\left(3\,i\,b\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,\pi\,x-3\,i\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,\pi\,\text{Log}\left[1+e^{2\,b\,x}\right]+\right.$$
$$6\,b\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,x\,\text{Log}\left[1-e^{-2\,(b\,x+\text{ArcTanh}[\text{Coth}[a]])}\right]+3\,i\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,\pi\,\text{Log}[\text{Cosh}[b\,x]]+$$
$$6\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,\text{ArcTanh}[\text{Coth}[a]]\left(b\,x+\text{Log}\left[1-e^{-2\,(b\,x+\text{ArcTanh}[\text{Coth}[a]])}\right]-\text{Log}[i\,\text{Sinh}[b\,x+\text{ArcTanh}[\text{Coth}[a]]]]\right)-$$
$$3\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,\text{PolyLog}\left[2,\ e^{-2\,(b\,x+\text{ArcTanh}[\text{Coth}[a]])}\right]+b^3\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,x^3\,\text{Sech}[a+b\,x]^2-$$
$$\left.3\,b^2\,e^{\text{ArcTanh}[\text{Coth}[a]]}\,x^2\,\text{Sech}[a]\,\text{Sech}[a+b\,x]\,\text{Sinh}[b\,x]-3\,b^2\,x^2\,\sqrt{-\text{Csch}[a]^2}\,\,\text{Tanh}[a]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{x^2\,\text{Coth}[a+b\,x]\,\text{Csch}[a+b\,x],\ x,\ 5,\ 0\}$$

$$-\frac{4\,x\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b^2}-\frac{x^2\,\text{Csch}[a+b\,x]}{b}-\frac{2\,\text{PolyLog}\left[2,\ -e^{a+b\,x}\right]}{b^3}+\frac{2\,\text{PolyLog}\left[2,\ e^{a+b\,x}\right]}{b^3}$$

$$-\frac{1}{b^3}\left(b^2\,x^2\,\text{Csch}[a+b\,x]-2\,a\,\text{Log}\left[1-e^{-a-b\,x}\right]-2\,b\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]+2\,a\,\text{Log}\left[1+e^{-a-b\,x}\right]+\right.$$
$$\left.2\,b\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]+2\,a\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-2\,\text{PolyLog}\left[2,\ -e^{-a-b\,x}\right]+2\,\text{PolyLog}\left[2,\ e^{-a-b\,x}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{x^3\,\text{Coth}[a+b\,x]\,\text{Csch}[a+b\,x]^2,\ x,\ 6,\ 0\}$$

$$-\frac{3\,x^2}{2\,b^2}-\frac{3\,x^2\,\text{Coth}[a+b\,x]}{2\,b^2}-\frac{x^3\,\text{Csch}[a+b\,x]^2}{2\,b}+\frac{3\,x\,\text{Log}\left[1-e^{2\,a+2\,b\,x}\right]}{b^3}+\frac{3\,\text{PolyLog}\left[2,\ e^{2\,a+2\,b\,x}\right]}{2\,b^4}$$
$$-\frac{x^3\,\text{Csch}[a+b\,x]^2}{2\,b}+\frac{3\,x^2\,\text{Csch}[a]\,\text{Csch}[a+b\,x]\,\text{Sinh}[b\,x]}{2\,b^2}+\frac{1}{2\,b^4\,\sqrt{\text{Sech}[a]^2\left(\text{Cosh}[a]^2-\text{Sinh}[a]^2\right)}}$$

$$3\,\text{Csch}[a]\,\text{Sech}[a]\left(-b^2\,e^{-\text{ArcTanh}[\text{Tanh}[a]]}\,x^2+\frac{1}{\sqrt{1-\text{Tanh}[a]^2}}\,i\left(-b\,x\,(-\pi+2\,i\,\text{ArcTanh}[\text{Tanh}[a]])-\right.\right.$$
$$\pi\,\text{Log}\left[1+e^{2\,b\,x}\right]-2\,(i\,b\,x+i\,\text{ArcTanh}[\text{Tanh}[a]])\,\text{Log}\left[1-e^{2\,i\,(i\,b\,x+i\,\text{ArcTanh}[\text{Tanh}[a]])}\right]+\pi\,\text{Log}[\text{Cosh}[b\,x]]+$$
$$\left.\left.2\,i\,\text{ArcTanh}[\text{Tanh}[a]]\,\text{Log}[i\,\text{Sinh}[b\,x+\text{ArcTanh}[\text{Tanh}[a]]]]+i\,\text{PolyLog}\left[2,\ e^{2\,i\,(i\,b\,x+i\,\text{ArcTanh}[\text{Tanh}[a]])}\right]\right)\text{Tanh}[a]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Csch}[a+b\,x]\,\text{Sech}[a+b\,x],\ x,\ 1,\ 0\}$$

$$\frac{\text{Log}[\text{Tanh}[a+b\,x]]}{b}$$

$$\frac{-\text{Log}[2\,\text{Cosh}[a+b\,x]]+\text{Log}[2\,\text{Sinh}[a+b\,x]]}{b}$$

Valid but unnecessarily complicated antiderivative:

$$\{x\,\text{Csch}[a+b\,x]\,\text{Sech}[a+b\,x]^2,\ x,\ 9,\ 0\}$$

$$-\frac{\text{ArcTan}[\text{Sinh}[a+b\,x]]}{b^2}-\frac{2\,x\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{\text{PolyLog}\left[2,\,-e^{a+b\,x}\right]}{b^2}+\frac{\text{PolyLog}\left[2,\,e^{a+b\,x}\right]}{b^2}+\frac{x\,\text{Sech}[a+b\,x]}{b}$$

$$\frac{1}{b^2}\left(-2\,\text{ArcTan}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+a\,\text{Log}\left[1-e^{-a-b\,x}\right]+b\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]-a\,\text{Log}\left[1+e^{-a-b\,x}\right]-\right.$$
$$\left.b\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]-a\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+\text{PolyLog}\left[2,\,-e^{-a-b\,x}\right]-\text{PolyLog}\left[2,\,e^{-a-b\,x}\right]+b\,x\,\text{Sech}[a+b\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x^2\,\text{Csch}[a+b\,x]\,\text{Sech}[a+b\,x]^3,\,x,\,14,\,0\right\}$$

$$-\frac{2\,x^2\,\text{ArcTanh}\left[e^{2\,a+2\,b\,x}\right]}{b}+\frac{\text{Log}[\text{Cosh}[a+b\,x]]}{b^3}-\frac{x\,\text{PolyLog}\left[2,\,-e^{2\,a+2\,b\,x}\right]}{b^2}+$$
$$\frac{x\,\text{PolyLog}\left[2,\,e^{2\,a+2\,b\,x}\right]}{b^2}+\frac{\text{PolyLog}\left[3,\,-e^{2\,a+2\,b\,x}\right]}{2\,b^3}-\frac{\text{PolyLog}\left[3,\,e^{2\,a+2\,b\,x}\right]}{2\,b^3}+\frac{x^2\,\text{Sech}[a+b\,x]^2}{2\,b}-\frac{x\,\text{Tanh}[a+b\,x]}{b^2}$$

$$\frac{1}{6}\left(4\,x^3\,\text{Csch}[2\,a]+\frac{1}{b^3\left(1+e^{2\,a}\right)}\left(-12\,b\,e^{2\,a}\,x+4\,b^3\,e^{2\,a}\,x^3+6\,\text{Log}\left[1+e^{2\,(a+b\,x)}\right]+6\,e^{2\,a}\,\text{Log}\left[1+e^{2\,(a+b\,x)}\right]-6\,b^2\,x^2\,\text{Log}\left[1+e^{2\,(a+b\,x)}\right]-\right.\right.$$
$$\left.6\,b^2\,e^{2\,a}\,x^2\,\text{Log}\left[1+e^{2\,(a+b\,x)}\right]-6\,b\left(1+e^{2\,a}\right)x\,\text{PolyLog}\left[2,\,-e^{2\,(a+b\,x)}\right]+3\left(1+e^{2\,a}\right)\text{PolyLog}\left[3,\,-e^{2\,(a+b\,x)}\right]\right)+$$
$$\frac{-2\,b^2\,x^2\left(2\,b\,e^{2\,a}\,x-3\left(-1+e^{2\,a}\right)\text{Log}\left[1-e^{2\,(a+b\,x)}\right]\right)+6\,b\left(-1+e^{2\,a}\right)x\,\text{PolyLog}\left[2,\,e^{2\,(a+b\,x)}\right]-3\left(-1+e^{2\,a}\right)\text{PolyLog}\left[3,\,e^{2\,(a+b\,x)}\right]}{b^3\left(-1+e^{2\,a}\right)}+$$
$$\left.\frac{3\,x^2\,\text{Sech}[a+b\,x]^2}{b}-\frac{6\,x\,\text{Sech}[a]\,\text{Sech}[a+b\,x]\,\text{Sinh}[b\,x]}{b^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Csch}[a+b\,x]\,\text{Sech}[a+b\,x]^3,\,x,\,9,\,0\right\}$$

$$-\frac{2\,x\,\text{ArcTanh}\left[e^{2\,a+2\,b\,x}\right]}{b}-\frac{\text{PolyLog}\left[2,\,-e^{2\,a+2\,b\,x}\right]}{2\,b^2}+\frac{\text{PolyLog}\left[2,\,e^{2\,a+2\,b\,x}\right]}{2\,b^2}+\frac{x\,\text{Sech}[a+b\,x]^2}{2\,b}-\frac{\text{Tanh}[a+b\,x]}{2\,b^2}$$

$$x^2\,\text{Csch}[2\,a]+\frac{x\,\text{Sech}[a+b\,x]^2}{2\,b}+\frac{1}{2\,b^2\sqrt{\text{Csch}[a]^2\left(-\text{Cosh}[a]^2+\text{Sinh}[a]^2\right)}}$$

$$\text{Csch}[a]\left(\left(-b^2\,e^{-\text{ArcTanh}[\text{Coth}[a]]}\,x^2+\frac{1}{\sqrt{1-\text{Coth}[a]^2}}\,i\,\text{Coth}[a]\left(-b\,x\,(-\pi+2\,i\,\text{ArcTanh}[\text{Coth}[a]])-\right.\right.\right.$$
$$\pi\,\text{Log}\left[1+e^{2\,b\,x}\right]-2\,(i\,b\,x+i\,\text{ArcTanh}[\text{Coth}[a]])\,\text{Log}\left[1-e^{2\,i\,(i\,b\,x+i\,\text{ArcTanh}[\text{Coth}[a]])}\right]+\pi\,\text{Log}[\text{Cosh}[b\,x]]+$$
$$\left.\left.\left.2\,i\,\text{ArcTanh}[\text{Coth}[a]]\,\text{Log}[i\,\text{Sinh}[b\,x+\text{ArcTanh}[\text{Coth}[a]]]]+i\,\text{PolyLog}\left[2,\,e^{2\,i\,(i\,b\,x+i\,\text{ArcTanh}[\text{Coth}[a]])}\right]\right)\right)\text{Sech}[a]-$$
$$\frac{\text{Sech}[a]\,\text{Sech}[a+b\,x]\,\text{Sinh}[b\,x]}{2\,b^2}+\frac{1}{2\,b^2\sqrt{\text{Sech}[a]^2\left(\text{Cosh}[a]^2-\text{Sinh}[a]^2\right)}}\,\text{Csch}[a]\,\text{Sech}[a]$$

$$\left(-b^2\,e^{-\text{ArcTanh}[\text{Tanh}[a]]}\,x^2+\frac{1}{\sqrt{1-\text{Tanh}[a]^2}}\,i\left(-b\,x\,(-\pi+2\,i\,\text{ArcTanh}[\text{Tanh}[a]])-\pi\,\text{Log}\left[1+e^{2\,b\,x}\right]-\right.\right.$$
$$2\,(i\,b\,x+i\,\text{ArcTanh}[\text{Tanh}[a]])\,\text{Log}\left[1-e^{2\,i\,(i\,b\,x+i\,\text{ArcTanh}[\text{Tanh}[a]])}\right]+\pi\,\text{Log}[\text{Cosh}[b\,x]]+$$
$$\left.\left.2\,i\,\text{ArcTanh}[\text{Tanh}[a]]\,\text{Log}[i\,\text{Sinh}[b\,x+\text{ArcTanh}[\text{Tanh}[a]]]]+i\,\text{PolyLog}\left[2,\,e^{2\,i\,(i\,b\,x+i\,\text{ArcTanh}[\text{Tanh}[a]])}\right]\right)\text{Tanh}[a]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{x\,\text{Csch}[a+b\,x]^2\,\text{Sech}[a+b\,x],\ x,\ 9,\ 0\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[a+b\,x]]}{b^2}-\frac{2\,x\,\text{ArcTan}\left[e^{a+b\,x}\right]}{b}-\frac{x\,\text{Csch}[a+b\,x]}{b}+\frac{i\,\text{PolyLog}\left[2,\ -i\,e^{a+b\,x}\right]}{b^2}-\frac{i\,\text{PolyLog}\left[2,\ i\,e^{a+b\,x}\right]}{b^2}$$

$$\frac{1}{2\,b^2}\left(-2\,b\,x\,\text{Csch}[a]-2\,i\,a\,\text{Log}\left[1-i\,e^{a+b\,x}\right]+\pi\,\text{Log}\left[1-i\,e^{a+b\,x}\right]-2\,i\,b\,x\,\text{Log}\left[1-i\,e^{a+b\,x}\right]+2\,i\,a\,\text{Log}\left[1+i\,e^{a+b\,x}\right]-\right.$$
$$\pi\,\text{Log}\left[1+i\,e^{a+b\,x}\right]+2\,i\,b\,x\,\text{Log}\left[1+i\,e^{a+b\,x}\right]-2\,\text{Log}\left[2\,\text{Cosh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+2\,i\,a\,\text{Log}\left[\text{Cot}\left[\frac{1}{4}\,(2\,i\,a+\pi+2\,i\,b\,x)\right]\right]-$$
$$\pi\,\text{Log}\left[\text{Cot}\left[\frac{1}{4}\,(2\,i\,a+\pi+2\,i\,b\,x)\right]\right]+2\,\text{Log}\left[2\,\text{Sinh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]+2\,i\,\text{PolyLog}\left[2,\ -i\,e^{a+b\,x}\right]-$$
$$\left.2\,i\,\text{PolyLog}\left[2,\ i\,e^{a+b\,x}\right]+b\,x\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]+b\,x\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{x^2\,\text{Csch}[a+b\,x]^2\,\text{Sech}[a+b\,x]^3,\ x,\ 24,\ 0\}$$

$$-\frac{3\,x^2\,\text{ArcTan}\left[e^{a+b\,x}\right]}{b}+\frac{\text{ArcTan}[\text{Sinh}[a+b\,x]]}{b^3}-\frac{4\,x\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b^2}-$$
$$\frac{2\,\text{PolyLog}\left[2,\ -e^{a+b\,x}\right]}{b^3}+\frac{3\,i\,x\,\text{PolyLog}\left[2,\ -i\,e^{a+b\,x}\right]}{b^2}-\frac{3\,i\,x\,\text{PolyLog}\left[2,\ i\,e^{a+b\,x}\right]}{b^2}+\frac{2\,\text{PolyLog}\left[2,\ e^{a+b\,x}\right]}{b^3}-$$
$$\frac{3\,i\,\text{PolyLog}\left[3,\ -i\,e^{a+b\,x}\right]}{b^3}+\frac{3\,i\,\text{PolyLog}\left[3,\ i\,e^{a+b\,x}\right]}{b^3}-\frac{x\,\text{Sech}[a+b\,x]}{b^2}-\frac{x^2\,\text{Csch}[a+b\,x]\left(3-\text{Sech}[a+b\,x]^2\right)}{2\,b}$$
$$-\frac{x^2\,\text{Csch}[a]}{b}+\frac{1}{b^3}2\left(-a\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-\right.$$
$$\left.i\left((i\,a+i\,b\,x)\left(\text{Log}\left[1-e^{i\,(i\,a+i\,b\,x)}\right]-\text{Log}\left[1+e^{i\,(i\,a+i\,b\,x)}\right]\right)+i\left(\text{PolyLog}\left[2,\ -e^{i\,(i\,a+i\,b\,x)}\right]-\text{PolyLog}\left[2,\ e^{i\,(i\,a+i\,b\,x)}\right]\right)\right)-$$
$$\frac{1}{2\,b^3}\,i\left(4\,i\,\text{ArcTan}\left[e^{a+b\,x}\right]+3\,b^2\,x^2\,\text{Log}\left[1-i\,e^{a+b\,x}\right]-3\,b^2\,x^2\,\text{Log}\left[1+i\,e^{a+b\,x}\right]-6\,b\,x\,\text{PolyLog}\left[2,\ -i\,e^{a+b\,x}\right]+\right.$$
$$\left.6\,b\,x\,\text{PolyLog}\left[2,\ i\,e^{a+b\,x}\right]+6\,\text{PolyLog}\left[3,\ -i\,e^{a+b\,x}\right]-6\,\text{PolyLog}\left[3,\ i\,e^{a+b\,x}\right]\right)-$$
$$\frac{x\,\text{Sech}[a]\,\text{Sech}[a+b\,x]\,(2\,\text{Cosh}[a]+b\,x\,\text{Sinh}[a])}{2\,b^2}+\frac{x^2\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{a}{2}+\frac{b\,x}{2}\right]\text{Sinh}\left[\frac{b\,x}{2}\right]}{2\,b}+$$
$$\frac{x^2\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{a}{2}+\frac{b\,x}{2}\right]\text{Sinh}\left[\frac{b\,x}{2}\right]}{2\,b}-\frac{x^2\,\text{Sech}[a]\,\text{Sech}[a+b\,x]^2\,\text{Sinh}[b\,x]}{2\,b}$$

Valid but unnecessarily complicated antiderivative:

$$\{x\,\text{Csch}[a+b\,x]^2\,\text{Sech}[a+b\,x]^3,\ x,\ 11,\ 0\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[a+b\,x]]}{b^2}-\frac{3\,x\,\text{ArcTan}\left[e^{a+b\,x}\right]}{b}+\frac{3\,i\,\text{PolyLog}\left[2,\ -i\,e^{a+b\,x}\right]}{2\,b^2}-$$
$$\frac{3\,i\,\text{PolyLog}\left[2,\ i\,e^{a+b\,x}\right]}{2\,b^2}-\frac{\text{Sech}[a+b\,x]}{2\,b^2}-\frac{x\,\text{Csch}[a+b\,x]\left(3-\text{Sech}[a+b\,x]^2\right)}{2\,b}$$

$$-\frac{x\,\text{Csch}[a]}{b}-\frac{\text{Log}\left[2\,\text{Cosh}\left[\frac{a}{2}+\frac{b\,x}{2}\right]\right]}{b^2}+\frac{\text{Log}\left[2\,\text{Sinh}\left[\frac{a}{2}+\frac{b\,x}{2}\right]\right]}{b^2}+$$

$$\frac{1}{2\,b^2}3\left(\left(-i\,a+\frac{\pi}{2}-i\,b\,x\right)\left(\text{Log}\left[1-e^{i\left(-i\,a+\frac{\pi}{2}-i\,b\,x\right)}\right]-\text{Log}\left[1+e^{i\left(-i\,a+\frac{\pi}{2}-i\,b\,x\right)}\right]\right)-\right.$$

$$\left.\left(-i\,a+\frac{\pi}{2}\right)\text{Log}\left[\text{Tan}\left[\frac{1}{2}\left(-i\,a+\frac{\pi}{2}-i\,b\,x\right)\right]\right]+i\left(\text{PolyLog}\left[2,\,-e^{i\left(-i\,a+\frac{\pi}{2}-i\,b\,x\right)}\right]-\text{PolyLog}\left[2,\,e^{i\left(-i\,a+\frac{\pi}{2}-i\,b\,x\right)}\right]\right)\right)+$$

$$\frac{\text{Sech}[a]\,\text{Sech}[a+b\,x]\,(-\text{Cosh}[a]-b\,x\,\text{Sinh}[a])}{2\,b^2}+\frac{x\,\text{Csch}\left[\frac{a}{2}\right]\,\text{Csch}\left[\frac{a}{2}+\frac{b\,x}{2}\right]\,\text{Sinh}\left[\frac{b\,x}{2}\right]}{2\,b}+$$

$$\frac{x\,\text{Sech}\left[\frac{a}{2}\right]\,\text{Sech}\left[\frac{a}{2}+\frac{b\,x}{2}\right]\,\text{Sinh}\left[\frac{b\,x}{2}\right]}{2\,b}-\frac{x\,\text{Sech}[a]\,\text{Sech}[a+b\,x]^2\,\text{Sinh}[b\,x]}{2\,b}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x^2\,\text{Csch}[a+b\,x]^3\,\text{Sech}[a+b\,x],\,x,\,14,\,0\right\}$$

$$\frac{2\,x^2\,\text{ArcTanh}\left[e^{2\,a+2\,b\,x}\right]}{b}-\frac{x\,\text{Coth}[a+b\,x]}{b^2}-\frac{x^2\,\text{Csch}[a+b\,x]^2}{2\,b}+\frac{\text{Log}[\text{Sinh}[a+b\,x]]}{b^3}+$$

$$\frac{x\,\text{PolyLog}\left[2,\,-e^{2\,a+2\,b\,x}\right]}{b^2}-\frac{x\,\text{PolyLog}\left[2,\,e^{2\,a+2\,b\,x}\right]}{b^2}-\frac{\text{PolyLog}\left[3,\,-e^{2\,a+2\,b\,x}\right]}{2\,b^3}+\frac{\text{PolyLog}\left[3,\,e^{2\,a+2\,b\,x}\right]}{2\,b^3}$$

$$\frac{1}{6}\left(-4\,x^3\,\text{Csch}[2\,a]-\frac{3\,x^2\,\text{Csch}[a+b\,x]^2}{b}+\right.$$

$$\frac{-2\,b^2\,x^2\left(2\,b\,e^{2\,a}\,x-3\left(1+e^{2\,a}\right)\text{Log}\left[1+e^{2\,(a+b\,x)}\right]\right)+6\,b\left(1+e^{2\,a}\right)x\,\text{PolyLog}\left[2,\,-e^{2\,(a+b\,x)}\right]-3\left(1+e^{2\,a}\right)\text{PolyLog}\left[3,\,-e^{2\,(a+b\,x)}\right]}{b^3\left(1+e^{2\,a}\right)}+$$

$$\frac{1}{b^3\left(-1+e^{2\,a}\right)}$$

$$\left(-12\,b\,e^{2\,a}\,x+4\,b^3\,e^{2\,a}\,x^3-6\,\text{Log}\left[1-e^{2\,(a+b\,x)}\right]+6\,e^{2\,a}\,\text{Log}\left[1-e^{2\,(a+b\,x)}\right]+6\,b^2\,x^2\,\text{Log}\left[1-e^{2\,(a+b\,x)}\right]-6\,b^2\,e^{2\,a}\,x^2\,\text{Log}\left[1-e^{2\,(a+b\,x)}\right]-\right.$$

$$\left.\left.6\,b\left(-1+e^{2\,a}\right)x\,\text{PolyLog}\left[2,\,e^{2\,(a+b\,x)}\right]+3\left(-1+e^{2\,a}\right)\text{PolyLog}\left[3,\,e^{2\,(a+b\,x)}\right]\right)+\frac{6\,x\,\text{Csch}[a]\,\text{Csch}[a+b\,x]\,\text{Sinh}[b\,x]}{b^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Csch}[a+b\,x]^3\,\text{Sech}[a+b\,x],\,x,\,9,\,0\right\}$$

$$\frac{2\,x\,\text{ArcTanh}\left[e^{2\,a+2\,b\,x}\right]}{b}-\frac{\text{Coth}[a+b\,x]}{2\,b^2}-\frac{x\,\text{Csch}[a+b\,x]^2}{2\,b}+\frac{\text{PolyLog}\left[2,\,-e^{2\,a+2\,b\,x}\right]}{2\,b^2}-\frac{\text{PolyLog}\left[2,\,e^{2\,a+2\,b\,x}\right]}{2\,b^2}$$

$$-x^2\,\text{Csch}[2a] - \frac{x\,\text{Csch}[a+bx]^2}{2b} - \frac{1}{2b^2\sqrt{\text{Csch}[a]^2\left(-\text{Cosh}[a]^2+\text{Sinh}[a]^2\right)}}$$

$$\text{Csch}[a]\left(\left(-b^2\,e^{-\text{ArcTanh}[\text{Coth}[a]]}\,x^2 + \frac{1}{\sqrt{1-\text{Coth}[a]^2}}\,i\,\text{Coth}[a]\left(-bx\left(-\pi+2i\,\text{ArcTanh}[\text{Coth}[a]]\right) - \pi\,\text{Log}\left[1+e^{2bx}\right] - 2\left(ibx+i\,\text{ArcTanh}[\text{Coth}[a]]\right)\text{Log}\left[1-e^{2i\left(ibx+i\,\text{ArcTanh}[\text{Coth}[a]]\right)}\right] + \pi\,\text{Log}[\text{Cosh}[bx]] + 2i\,\text{ArcTanh}[\text{Coth}[a]]\,\text{Log}[i\,\text{Sinh}[bx+\text{ArcTanh}[\text{Coth}[a]]]] + i\,\text{PolyLog}\left[2,\,e^{2i\left(ibx+i\,\text{ArcTanh}[\text{Coth}[a]]\right)}\right]\right)\right)\text{Sech}[a] + \frac{\text{Csch}[a]\,\text{Csch}[a+bx]\,\text{Sinh}[bx]}{2b^2} - \frac{1}{2b^2\sqrt{\text{Sech}[a]^2\left(\text{Cosh}[a]^2-\text{Sinh}[a]^2\right)}}\,\text{Csch}[a]\,\text{Sech}[a]$$

$$\left(-b^2\,e^{-\text{ArcTanh}[\text{Tanh}[a]]}\,x^2 + \frac{1}{\sqrt{1-\text{Tanh}[a]^2}}\,i\left(-bx\left(-\pi+2i\,\text{ArcTanh}[\text{Tanh}[a]]\right) - \pi\,\text{Log}\left[1+e^{2bx}\right] - 2\left(ibx+i\,\text{ArcTanh}[\text{Tanh}[a]]\right)\text{Log}\left[1-e^{2i\left(ibx+i\,\text{ArcTanh}[\text{Tanh}[a]]\right)}\right] + \pi\,\text{Log}[\text{Cosh}[bx]] + 2i\,\text{ArcTanh}[\text{Tanh}[a]]\,\text{Log}[i\,\text{Sinh}[bx+\text{ArcTanh}[\text{Tanh}[a]]]] + i\,\text{PolyLog}\left[2,\,e^{2i\left(ibx+i\,\text{ArcTanh}[\text{Tanh}[a]]\right)}\right]\right)\text{Tanh}[a]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x^2\,\text{Csch}[a+bx]^3\,\text{Sech}[a+bx]^2,\,x,\,24,\,0\right\}$$

$$-\frac{\text{ArcCoth}[\text{Cosh}[a+bx]]}{b^3} + \frac{4x\,\text{ArcTan}\left[e^{a+bx}\right]}{b^2} + \frac{3x^2\,\text{ArcTanh}\left[e^{a+bx}\right]}{b} - \frac{x\,\text{Csch}[a+bx]}{b^2} + \frac{3x\,\text{PolyLog}\left[2,\,-e^{a+bx}\right]}{b^2} - \frac{2i\,\text{PolyLog}\left[2,\,-i\,e^{a+bx}\right]}{b^3} + \frac{2i\,\text{PolyLog}\left[2,\,i\,e^{a+bx}\right]}{b^3} - \frac{3x\,\text{PolyLog}\left[2,\,e^{a+bx}\right]}{b^2} - \frac{3\,\text{PolyLog}\left[3,\,-e^{a+bx}\right]}{b^3} + \frac{3\,\text{PolyLog}\left[3,\,e^{a+bx}\right]}{b^3} - \frac{x^2\left(3+\text{Csch}[a+bx]^2\right)\text{Sech}[a+bx]}{2b}$$

$$-\frac{x\,\text{Csch}[a]}{b^2} - \frac{x^2\,\text{Csch}\left[\frac{a}{2}+\frac{bx}{2}\right]^2}{8b} - \frac{1}{b^3}2\left(\left(-ia+\frac{\pi}{2}-ibx\right)\left(\text{Log}\left[1-e^{i\left(-ia+\frac{\pi}{2}-ibx\right)}\right] - \text{Log}\left[1+e^{i\left(-ia+\frac{\pi}{2}-ibx\right)}\right]\right) - \left(-ia+\frac{\pi}{2}\right)\text{Log}\left[\text{Tan}\left[\frac{1}{2}\left(-ia+\frac{\pi}{2}-ibx\right)\right]\right] + i\left(\text{PolyLog}\left[2,\,-e^{i\left(-ia+\frac{\pi}{2}-ibx\right)}\right] - \text{PolyLog}\left[2,\,e^{i\left(-ia+\frac{\pi}{2}-ibx\right)}\right]\right)\right) - \frac{1}{2b^3}\left(4\,\text{ArcTanh}\left[e^{a+bx}\right] + 3b^2x^2\,\text{Log}\left[1-e^{a+bx}\right] - 3b^2x^2\,\text{Log}\left[1+e^{a+bx}\right] - 6bx\,\text{PolyLog}\left[2,\,-e^{a+bx}\right] + 6bx\,\text{PolyLog}\left[2,\,e^{a+bx}\right] + 6\,\text{PolyLog}\left[3,\,-e^{a+bx}\right] - 6\,\text{PolyLog}\left[3,\,e^{a+bx}\right]\right) - \frac{x^2\,\text{Sech}\left[\frac{a}{2}+\frac{bx}{2}\right]^2}{8b} - \frac{x^2\,\text{Sech}[a+bx]}{b} + \frac{x\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{a}{2}+\frac{bx}{2}\right]\text{Sinh}\left[\frac{bx}{2}\right]}{2b^2} + \frac{x\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{a}{2}+\frac{bx}{2}\right]\text{Sinh}\left[\frac{bx}{2}\right]}{2b^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{x\,\text{Csch}[a+bx]^3\,\text{Sech}[a+bx]^2,\,x,\,11,\,0\right\}$$

$$\frac{\text{ArcTan}[\text{Sinh}[a+b\,x]]}{b^2}+\frac{3\,x\,\text{ArcTanh}\left[e^{a+b\,x}\right]}{b}-\frac{\text{Csch}[a+b\,x]}{2\,b^2}+$$
$$\frac{3\,\text{PolyLog}\left[2,\,-e^{a+b\,x}\right]}{2\,b^2}-\frac{3\,\text{PolyLog}\left[2,\,e^{a+b\,x}\right]}{2\,b^2}-\frac{x\left(3+\text{Csch}[a+b\,x]^2\right)\text{Sech}[a+b\,x]}{2\,b}$$

$$\frac{1}{8\,b^2}\left(16\,\text{ArcTan}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-b\,x\,\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]^2-12\,a\,\text{Log}\left[1-e^{-a-b\,x}\right]-12\,b\,x\,\text{Log}\left[1-e^{-a-b\,x}\right]+12\,a\,\text{Log}\left[1+e^{-a-b\,x}\right]+\right.$$
$$\left.12\,b\,x\,\text{Log}\left[1+e^{-a-b\,x}\right]+12\,a\,\text{Log}\left[\text{Tanh}\left[\frac{1}{2}\,(a+b\,x)\right]\right]-12\,\text{PolyLog}\left[2,\,-e^{-a-b\,x}\right]+12\,\text{PolyLog}\left[2,\,e^{-a-b\,x}\right]-b\,x\,\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]^2-\right.$$
$$\left.8\,b\,x\,\text{Sech}[a+b\,x]+2\,\text{Csch}\left[\frac{a}{2}\right]\text{Csch}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]+2\,\text{Sech}\left[\frac{a}{2}\right]\text{Sech}\left[\frac{1}{2}\,(a+b\,x)\right]\text{Sinh}\left[\frac{b\,x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Sinh}[x]\,\text{Tanh}[2\,x],\,x,\,5,\,0\}$$

$$-\frac{\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]}{\sqrt{2}}+\text{Sinh}[x]$$

$$\frac{1}{8}\left(-\sqrt{2}\left(2\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.\right.$$
$$\left.\left.2\,\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]-i\,\text{Log}\left[2\left(\sqrt{2}+2\,\text{Cosh}[x]\right)\right]-i\,\text{Log}\left[-2\sqrt{2}+4\,\text{Cosh}[x]\right]+i\,\text{Log}[2\,\text{Cosh}[2\,x]]\right)+8\,\text{Sinh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Sinh}[x]\,\text{Tanh}[4\,x],\,x,\,6,\,0\}$$

$$-\frac{1}{4}\sqrt{2-\sqrt{2}}\,\text{ArcTan}\left[\frac{2\,\text{Sinh}[x]}{\sqrt{2-\sqrt{2}}}\right]-\frac{1}{4}\sqrt{2+\sqrt{2}}\,\text{ArcTan}\left[\frac{2\,\text{Sinh}[x]}{\sqrt{2+\sqrt{2}}}\right]+\text{Sinh}[x]$$

$$-\frac{1}{16}\,\text{RootSum}\left[1+\#1^8\&,\,\frac{x+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^6+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6}{\#1^7}\&\right]+\text{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Sinh}[x]\,\text{Tanh}[5\,x],\,x,\,7,\,0\}$$

$$-\frac{1}{5}\,\text{ArcTan}[\text{Sinh}[x]]+\frac{1}{10}\left(1+\sqrt{5}\right)\text{ArcTan}\left[\left(1-\sqrt{5}\right)\text{Sinh}[x]\right]+\frac{1}{10}\left(1-\sqrt{5}\right)\text{ArcTan}\left[\left(1+\sqrt{5}\right)\text{Sinh}[x]\right]+\text{Sinh}[x]$$

$$-\frac{2}{5}\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right] -$$
$$\frac{1}{20}\text{RootSum}\left[1-\#1^2+\#1^4-\#1^6+\#1^8\&,\ \frac{1}{-\#1+2\#1^3-3\#1^5+4\#1^7}\left(3x+6\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]-\right.\right.$$
$$x\#1^2-2\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2-x\#1^4-$$
$$2\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+3x\#1^6+$$
$$\left.\left.6\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]+\text{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Sinh}[x]\,\text{Tanh}[6x],\ x,\ 7,\ 0\}$$

$$-\frac{\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]}{3\sqrt{2}}+\frac{1}{12}\left(\sqrt{2}+\sqrt{6}\right)\text{ArcTan}\left[\left(\sqrt{2}-\sqrt{6}\right)\text{Sinh}[x]\right]+$$
$$\frac{1}{12}\left(\sqrt{2}-\sqrt{6}\right)\text{ArcTan}\left[\left(\sqrt{2}+\sqrt{6}\right)\text{Sinh}[x]\right]+\text{Sinh}[x]$$
$$\frac{1}{24}\left(-\sqrt{2}\left(2\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.\right.$$
$$\left.2\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]-i\,\text{Log}\left[2\left(\sqrt{2}+2\text{Cosh}[x]\right)\right]-i\,\text{Log}\left[-2\sqrt{2}+4\text{Cosh}[x]\right]+i\,\text{Log}[2\text{Cosh}[2x]]\right)-$$
$$\text{RootSum}\left[1-\#1^4+\#1^8\&,\ \frac{1}{-\#1^3+2\#1^7}\left(2x+4\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]-x\#1^2-\right.\right.$$
$$2\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2-x\#1^4-2\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-$$
$$\left.\left.\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+2x\#1^6+4\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]+24\text{Sinh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Coth}[4x]\,\text{Sinh}[x],\ x,\ 5,\ 0\}$$

$$-\frac{1}{4}\text{ArcTan}[\text{Sinh}[x]]-\frac{\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]}{2\sqrt{2}}+\text{Sinh}[x]$$
$$\frac{1}{16}\left(-2\sqrt{2}\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-\right.$$
$$2\sqrt{2}\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-2\sqrt{2}\,\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]-8\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]+$$
$$\left.i\sqrt{2}\,\text{Log}\left[2\left(\sqrt{2}+2\text{Cosh}[x]\right)\right]+i\sqrt{2}\,\text{Log}\left[-2\sqrt{2}+4\text{Cosh}[x]\right]-i\sqrt{2}\,\text{Log}[2\text{Cosh}[2x]]+16\text{Sinh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Coth}[5x]\,\text{Sinh}[x],\ x,\ 6,\ 0\}$$

$$-\frac{1}{10}\sqrt{10-2\sqrt{5}}\ \text{ArcTan}\left[\frac{4\,\text{Sinh}[x]}{\sqrt{10-2\sqrt{5}}}\right]-\frac{1}{10}\sqrt{10+2\sqrt{5}}\ \text{ArcTan}\left[\frac{4\,\text{Sinh}[x]}{\sqrt{10+2\sqrt{5}}}\right]+\text{Sinh}[x]$$

$$\frac{1}{20\sqrt{5}}\left(\sqrt{2}\left(-\left(-5+\sqrt{5}\right)\sqrt{5+\sqrt{5}}\ \text{ArcTan}\left[\frac{\left(-3+\sqrt{5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{10-2\sqrt{5}}}\right]+\left(-5+\sqrt{5}\right)\sqrt{5+\sqrt{5}}\ \text{ArcTan}\left[\frac{\left(5+\sqrt{5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{10-2\sqrt{5}}}\right]+\right.\right.$$

$$\left.\left.\sqrt{5-\sqrt{5}}\ \left(5+\sqrt{5}\right)\left(\text{ArcTan}\left[\frac{\left(-5+\sqrt{5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2\left(5+\sqrt{5}\right)}}\right]-\text{ArcTan}\left[\frac{\left(3+\sqrt{5}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2\left(5+\sqrt{5}\right)}}\right]\right)\right)+20\sqrt{5}\ \text{Sinh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

{Sech[2 x] Sinh[x], x, 2, 0}

$$-\frac{\text{ArcTanh}\left[\sqrt{2}\ \text{Cosh}[x]\right]}{\sqrt{2}}$$

$$\frac{1}{4\sqrt{2}}\left(-2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-\right.$$

$$\left.4\,\text{ArcTanh}\left[\sqrt{2}\ -i\,\text{Tanh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[2\left(\sqrt{2}\ +2\,\text{Cosh}[x]\right)\right]+\text{Log}\left[-2\sqrt{2}\ +4\,\text{Cosh}[x]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

{Sech[4 x] Sinh[x], x, 4, 0}

$$\frac{1}{4}\sqrt{2+\sqrt{2}}\ \text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{2-\sqrt{2}}}\right]-\frac{1}{4}\sqrt{2-\sqrt{2}}\ \text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{2+\sqrt{2}}}\right]$$

$$\frac{1}{16}\,\text{RootSum}\left[1+\#1^8\,\&,\ \frac{-x-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^2+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2}{\#1^5}\,\&\right]$$

Valid but unnecessarily complicated antiderivative:

{Sech[6 x] Sinh[x], x, 7, 0}

$$\frac{\text{ArcTanh}\left[\sqrt{2}\ \text{Cosh}[x]\right]}{3\sqrt{2}}-\frac{1}{12}\left(\sqrt{2}\ -\sqrt{6}\right)\text{ArcTanh}\left[\left(\sqrt{2}\ -\sqrt{6}\right)\text{Cosh}[x]\right]-\frac{1}{12}\left(\sqrt{2}\ +\sqrt{6}\right)\text{ArcTanh}\left[\left(\sqrt{2}\ +\sqrt{6}\right)\text{Cosh}[x]\right]$$

$$\frac{1}{24\sqrt{2}}\left(4\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-4\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.$$
$$8\,\text{ArcTanh}\left[\sqrt{2}\,-i\,\text{Tanh}\left[\frac{x}{2}\right]\right]+2\,\text{Log}\left[2\left(\sqrt{2}\,+2\,\text{Cosh}[x]\right)\right]-2\,\text{Log}\left[-2\sqrt{2}\,+4\,\text{Cosh}[x]\right]+$$
$$\sqrt{2}\,\text{RootSum}\left[1-\#1^4+\#1^8\&,\ \frac{1}{-\#1^3+2\,\#1^7}\left(-x-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^2+\right.\right.$$
$$2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2-x\,\#1^4-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+$$
$$\left.\left.\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+x\,\#1^6+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

```
{Csch[4 x] Sinh[x], x, 4, 0}
```

$$-\frac{1}{4}\text{ArcTan}[\text{Sinh}[x]]+\frac{\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]}{2\sqrt{2}}$$

$$\frac{1}{16}\left(2\sqrt{2}\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.$$
$$2\sqrt{2}\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\sqrt{2}\,\text{ArcTan}\left[\sqrt{2}\,\text{Sinh}[x]\right]-8\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]-$$
$$\left.i\sqrt{2}\,\text{Log}\left[2\left(\sqrt{2}\,+2\,\text{Cosh}[x]\right)\right]-i\sqrt{2}\,\text{Log}\left[-2\sqrt{2}\,+4\,\text{Cosh}[x]\right]+i\sqrt{2}\,\text{Log}[2\,\text{Cosh}[2x]]\right)$$

FullSimplify::ztest1 :

Unable to decide whether numeric quantity $-\frac{16}{5\left(3+\sqrt{5}\right)^2}-\frac{8}{\sqrt{5}\left(3+\sqrt{5}\right)^2}+\frac{2\sqrt{\frac{1}{5}\left(6+2\sqrt{5}\right)}}{\left(3+\sqrt{5}\right)^2}+\frac{6\sqrt{\frac{1}{5}\left(30+10\sqrt{5}\right)}}{5\left(3+\sqrt{5}\right)^2}$ is equal to zero. Assuming it is. ≫

Valid but unnecessarily complicated antiderivative:

```
{Cosh[x] Tanh[2 x], x, 5, 0}
```

$$-\frac{\text{ArcTanh}\left[\sqrt{2}\,\text{Cosh}[x]\right]}{\sqrt{2}}+\text{Cosh}[x]$$

$$\frac{1}{4\sqrt{2}}\left(-2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-\right.$$
$$\left.4\,\text{ArcTanh}\left[\sqrt{2}\,-i\,\text{Tanh}\left[\frac{x}{2}\right]\right]+4\sqrt{2}\,\text{Cosh}[x]-\text{Log}\left[2\left(\sqrt{2}\,+2\,\text{Cosh}[x]\right)\right]+\text{Log}\left[-2\sqrt{2}\,+4\,\text{Cosh}[x]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

```
{Cosh[x] Tanh[3 x], x, 4, 0}
```

$$-\frac{\text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{3}}\right]}{\sqrt{3}}+\text{Cosh}[x]$$

$$-\frac{\text{ArcTanh}\left[\frac{2-i\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3}}\right]}{\sqrt{3}}-\frac{\text{ArcTanh}\left[\frac{2+i\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3}}\right]}{\sqrt{3}}+\text{Cosh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Tanh}[4x],\,x,\,6,\,0\}$$

$$-\frac{1}{4}\sqrt{2-\sqrt{2}}\;\text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{2-\sqrt{2}}}\right]-\frac{1}{4}\sqrt{2+\sqrt{2}}\;\text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{2+\sqrt{2}}}\right]+\text{Cosh}[x]$$

$$\text{Cosh}[x]+\frac{1}{16}\,\text{RootSum}\left[1+\#1^8\&,\;\frac{-x-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^6+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6}{\#1^7}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Tanh}[5x],\,x,\,6,\,0\}$$

$$-\frac{1}{10}\sqrt{10-2\sqrt{5}}\;\text{ArcTanh}\left[\frac{4\,\text{Cosh}[x]}{\sqrt{10-2\sqrt{5}}}\right]-\frac{1}{10}\sqrt{10+2\sqrt{5}}\;\text{ArcTanh}\left[\frac{4\,\text{Cosh}[x]}{\sqrt{10+2\sqrt{5}}}\right]+\text{Cosh}[x]$$

$$\text{Cosh}[x]+\frac{1}{4}\,\text{RootSum}\left[1-\#1^2+\#1^4-\#1^6+\#1^8\&,\;\frac{1}{-\#1+2\,\#1^3-3\,\#1^5+4\,\#1^7}\left(-x-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^2+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2-x\,\#1^4-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+x\,\#1^6+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Tanh}[6x],\,x,\,8,\,0\}$$

$$-\frac{\text{ArcTanh}\left[\sqrt{2}\;\text{Cosh}[x]\right]}{3\sqrt{2}}+\frac{1}{12}\left(\sqrt{2}+\sqrt{6}\right)\text{ArcTanh}\left[\left(\sqrt{2}-\sqrt{6}\right)\text{Cosh}[x]\right]+\frac{1}{12}\left(\sqrt{2}-\sqrt{6}\right)\text{ArcTanh}\left[\left(\sqrt{2}+\sqrt{6}\right)\text{Cosh}[x]\right]+\text{Cosh}[x]$$

$$\frac{1}{24\sqrt{2}}\left(-4\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+4\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-\right.$$

$$8\,\text{ArcTanh}\left[\sqrt{2}\,-i\,\text{Tanh}\left[\frac{x}{2}\right]\right]+24\sqrt{2}\,\text{Cosh}[x]-2\,\text{Log}\left[2\left(\sqrt{2}\,+2\,\text{Cosh}[x]\right)\right]+2\,\text{Log}\left[-2\sqrt{2}\,+4\,\text{Cosh}[x]\right]+$$

$$\sqrt{2}\,\text{RootSum}\left[1-\#1^4+\#1^8\,\&,\ \frac{1}{-\#1^3+2\,\#1^7}\left(-2\,x-4\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]-\right.\right.$$

$$x\,\#1^2-2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2+x\,\#1^4+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+$$

$$\left.\left.\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+2\,x\,\#1^6+4\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Coth}[2\,x],\,x,\,4,\,0\}$$

$$-\frac{1}{2}\,\text{ArcTanh}[\text{Cosh}[x]]+\text{Cosh}[x]$$

$$\frac{1}{2}\left(2\,\text{Cosh}[x]-\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Coth}[4\,x],\,x,\,5,\,0\}$$

$$-\frac{1}{4}\,\text{ArcTanh}[\text{Cosh}[x]]-\frac{\text{ArcTanh}\left[\sqrt{2}\,\text{Cosh}[x]\right]}{2\sqrt{2}}+\text{Cosh}[x]$$

$$\frac{1}{8\sqrt{2}}\left(-2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.$$

$$2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-4\,\text{ArcTanh}\left[\sqrt{2}\,-i\,\text{Tanh}\left[\frac{x}{2}\right]\right]+8\sqrt{2}\,\text{Cosh}[x]-$$

$$\left.2\sqrt{2}\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[2\left(\sqrt{2}\,+2\,\text{Cosh}[x]\right)\right]+\text{Log}\left[-2\sqrt{2}\,+4\,\text{Cosh}[x]\right]+2\sqrt{2}\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Coth}[6\,x],\,x,\,6,\,0\}$$

$$-\frac{1}{6}\,\text{ArcTanh}[\text{Cosh}[x]]-\frac{1}{6}\,\text{ArcTanh}[2\,\text{Cosh}[x]]-\frac{\text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{3}}\right]}{2\sqrt{3}}+\text{Cosh}[x]$$

$$\frac{1}{12}\left(-2\sqrt{3}\,\text{ArcTanh}\left[\frac{2-i\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3}}\right]-2\sqrt{3}\,\text{ArcTanh}\left[\frac{2+i\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3}}\right]+\right.$$

$$\left.12\,\text{Cosh}[x]-2\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}[-1+2\,\text{Cosh}[x]]-\text{Log}[1+2\,\text{Cosh}[x]]+2\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Sech}[2\,x],\,x,\,2,\,0\}$$

$$\frac{\text{ArcTan}\left[\sqrt{2}\ \text{Sinh}[x]\right]}{\sqrt{2}}$$

$$\frac{1}{4\sqrt{2}}\left(2\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.$$
$$\left.2\,\text{ArcTan}\left[\sqrt{2}\ \text{Sinh}[x]\right]-i\,\text{Log}\left[2\left(\sqrt{2}+2\,\text{Cosh}[x]\right)\right]-i\,\text{Log}\left[-2\sqrt{2}+4\,\text{Cosh}[x]\right]+i\,\text{Log}[2\,\text{Cosh}[2x]]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Sech}[4x],\ x,\ 4,\ 0\}$$

$$\frac{1}{4}\sqrt{2+\sqrt{2}}\ \text{ArcTan}\left[\frac{2\,\text{Sinh}[x]}{\sqrt{2-\sqrt{2}}}\right]-\frac{1}{4}\sqrt{2-\sqrt{2}}\ \text{ArcTan}\left[\frac{2\,\text{Sinh}[x]}{\sqrt{2+\sqrt{2}}}\right]$$

$$\frac{1}{16}\,\text{RootSum}\left[1+\#1^8\&,\ \frac{x+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^2+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2}{\#1^5}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Sech}[6x],\ x,\ 7,\ 0\}$$

$$-\frac{\text{ArcTan}\left[\sqrt{2}\ \text{Sinh}[x]\right]}{3\sqrt{2}}+\frac{1}{12}\left(\sqrt{2}-\sqrt{6}\right)\text{ArcTan}\left[\left(\sqrt{2}-\sqrt{6}\right)\text{Sinh}[x]\right]+\frac{1}{12}\left(\sqrt{2}+\sqrt{6}\right)\text{ArcTan}\left[\left(\sqrt{2}+\sqrt{6}\right)\text{Sinh}[x]\right]$$
$$\frac{1}{24}\left(-\sqrt{2}\left(2\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+2\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+\right.\right.$$
$$\left.\left.2\,\text{ArcTan}\left[\sqrt{2}\ \text{Sinh}[x]\right]-i\,\text{Log}\left[2\left(\sqrt{2}+2\,\text{Cosh}[x]\right)\right]-i\,\text{Log}\left[-2\sqrt{2}+4\,\text{Cosh}[x]\right]+i\,\text{Log}[2\,\text{Cosh}[2x]]\right)+\right.$$
$$\text{RootSum}\left[1-\#1^4+\#1^8\&,\ \frac{1}{-\#1^3+2\,\#1^7}\left(x+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]+x\,\#1^2+\right.\right.$$
$$2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^2+x\,\#1^4+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\right.$$
$$\left.\left.\left.\left.\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^4+x\,\#1^6+2\,\text{Log}\left[-\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]+\text{Cosh}\left[\frac{x}{2}\right]\#1-\text{Sinh}\left[\frac{x}{2}\right]\#1\right]\#1^6\right)\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Csch}[2x],\ x,\ 3,\ 0\}$$

$$-\frac{1}{2}\,\text{ArcTanh}[\text{Cosh}[x]]$$

$$\frac{1}{2}\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Csch}[4x],\ x,\ 4,\ 0\}$$

$$-\frac{1}{4}\text{ArcTanh}[\text{Cosh}[x]]+\frac{\text{ArcTanh}\left[\sqrt{2}\,\text{Cosh}[x]\right]}{2\sqrt{2}}$$

$$\frac{1}{8\sqrt{2}}\left(2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(-1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]-\right.$$

$$2\,i\,\text{ArcTan}\left[\frac{\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}{\left(-1+\sqrt{2}\right)\text{Cosh}\left[\frac{x}{2}\right]-\left(1+\sqrt{2}\right)\text{Sinh}\left[\frac{x}{2}\right]}\right]+4\,\text{ArcTanh}\left[\sqrt{2}\,-i\,\text{Tanh}\left[\frac{x}{2}\right]\right]-$$

$$\left.2\sqrt{2}\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\left(\sqrt{2}\,+2\,\text{Cosh}[x]\right)\right]-\text{Log}\left[-2\sqrt{2}\,+4\,\text{Cosh}[x]\right]+2\sqrt{2}\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Csch}[6\,x],\,x,\,6,\,0\}$$

$$-\frac{1}{6}\text{ArcTanh}[\text{Cosh}[x]]-\frac{1}{6}\text{ArcTanh}[2\,\text{Cosh}[x]]+\frac{\text{ArcTanh}\left[\frac{2\,\text{Cosh}[x]}{\sqrt{3}}\right]}{2\sqrt{3}}$$

$$\frac{1}{12}\left(2\sqrt{3}\,\text{ArcTanh}\left[\frac{2-i\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3}}\right]+2\sqrt{3}\,\text{ArcTanh}\left[\frac{2+i\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3}}\right]-\right.$$

$$\left.2\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}[-1+2\,\text{Cosh}[x]]-\text{Log}[1+2\,\text{Cosh}[x]]+2\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Cosh}[x]\,\text{Coth}[x]},\,x,\,2,\,0\right\}$$

$$2\sqrt{\text{Cosh}[x]\,\text{Coth}[x]}\,\text{Tanh}[x]$$

$$\frac{2\sqrt{\text{Cosh}[x]\,\text{Coth}[x]}\,\left(-1+\left(-\text{Sinh}[x]^2\right)^{1/4}\right)\text{Tanh}[x]}{\left(-\text{Sinh}[x]^2\right)^{1/4}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{a+b\,\text{Sinh}[x]},\,x,\,5,\,0\right\}$$

$$\frac{b\,\text{ArcCoth}[\text{Cosh}[x]]}{a^2}-\frac{2\sqrt{a^2+b^2}\,\text{ArcTanh}\left[\frac{b-a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^2+b^2}}\right]}{a^2}-\frac{\text{Coth}[x]}{a}$$

$$\frac{2\left(a^2+b^2\right)\text{ArcTan}\left[\frac{b-a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{-a^2-b^2}}\right]-a\sqrt{-a^2-b^2}\,\text{Coth}[x]+b\sqrt{-a^2-b^2}\,\left(\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)}{a^2\sqrt{-a^2-b^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{i+\text{Sinh}[x]},\,x,\,4,\,0\right\}$$

$$-\text{ArcCoth}[\text{Cosh}[x]]+i\,\text{Coth}[x]$$

$$\frac{1}{2}\,i\left(\text{Coth}\left[\frac{x}{2}\right]+2\,i\left(\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)+\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^4}{a+b\,\text{Sinh}[x]},\,x,\,9,\,0\right\}$$

$$-\frac{b\,\text{ArcCoth}[\text{Cosh}[x]]}{2\,a^2}+\frac{b^3\,\text{ArcCoth}[\text{Cosh}[x]]}{a^4}-\frac{2\,b^4\,\text{ArcTanh}\left[\frac{b-a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^2+b^2}}\right]}{a^4\sqrt{a^2+b^2}}+\frac{\text{Coth}[x]}{a}-\frac{b^2\,\text{Coth}[x]}{a^3}-\frac{\text{Coth}[x]^3}{3\,a}+\frac{b\,\text{Coth}[x]\,\text{Csch}[x]}{2\,a^2}$$

$$\frac{1}{24\,a^4}\left(\frac{48\,b^4\,\text{ArcTan}\left[\frac{b-a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{-a^2-b^2}}\right]}{\sqrt{-a^2-b^2}}+4\,a\left(2\,a^2-3\,b^2\right)\text{Coth}\left[\frac{x}{2}\right]+3\,a^2\,b\,\text{Csch}\left[\frac{x}{2}\right]^2-\right.$$

$$12\,a^2\,b\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+24\,b^3\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+12\,a^2\,b\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-24\,b^3\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+$$

$$\left.3\,a^2\,b\,\text{Sech}\left[\frac{x}{2}\right]^2+8\,a^3\,\text{Csch}[x]^3\,\text{Sinh}\left[\frac{x}{2}\right]^4-\frac{1}{2}\,a^3\,\text{Csch}\left[\frac{x}{2}\right]^4\,\text{Sinh}[x]+8\,a^3\,\text{Tanh}\left[\frac{x}{2}\right]-12\,a\,b^2\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]}{i+\text{Sinh}[x]},\,x,\,4,\,0\right\}$$

$$i\,\text{ArcCoth}[\text{Cosh}[x]]-\frac{i\,\text{Cosh}[x]}{1-i\,\text{Sinh}[x]}$$

$$i\left(\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)+\frac{2\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^2}{i+\text{Sinh}[x]},\,x,\,5,\,0\right\}$$

$$-\text{ArcCoth}[\text{Cosh}[x]]+i\,\text{Coth}[x]+\frac{\text{Cosh}[x]}{1-i\,\text{Sinh}[x]}$$

$$\frac{1}{2}\,i\,\text{Coth}\left[\frac{x}{2}\right]-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]+\frac{2\,i\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}+\frac{1}{2}\,i\,\text{Tanh}\left[\frac{x}{2}\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^3}{i+\text{Sinh}[x]},\,x,\,7,\,0\right\}$$

$$-\frac{3}{2}\,i\,\text{ArcCoth}[\text{Cosh}[x]]-\text{Coth}[x]+\frac{1}{2}\,i\,\text{Coth}[x]\,\text{Csch}[x]+\frac{i\,\text{Cosh}[x]}{1-i\,\text{Sinh}[x]}$$

$$\frac{1}{8}\left(-4\,\text{Coth}\left[\frac{x}{2}\right]+i\,\text{Csch}\left[\frac{x}{2}\right]^2-12\,i\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+12\,i\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+i\,\text{Sech}\left[\frac{x}{2}\right]^2-\frac{16\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}-4\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^4}{i+\text{Sinh}[x]},\ x,\ 9,\ 0\right\}$$

$$\frac{3}{2}\text{ArcCoth}[\text{Cosh}[x]]-2\,i\,\text{Coth}[x]+\frac{1}{3}\,i\,\text{Coth}[x]^3-\frac{1}{2}\,\text{Coth}[x]\,\text{Csch}[x]-\frac{\text{Cosh}[x]}{1-i\,\text{Sinh}[x]}$$

$$\frac{1}{24}\left(-20\,i\,\text{Coth}\left[\frac{x}{2}\right]-3\,\text{Csch}\left[\frac{x}{2}\right]^2+36\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-36\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-\right.$$

$$\left.3\,\text{Sech}\left[\frac{x}{2}\right]^2-\frac{48\,i\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}-8\,i\,\text{Csch}[x]^3\,\text{Sinh}\left[\frac{x}{2}\right]^4+\frac{1}{2}\,i\,\text{Csch}\left[\frac{x}{2}\right]^4\,\text{Sinh}[x]-20\,i\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cosh}[x]^3}{a+b\,\text{Tanh}[x]},\ x,\ 10,\ 0\right\}$$

$$\frac{2\,b^4\,\text{ArcTan}\left[\frac{b+a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^2-b^2}}\right]}{\left(a^2-b^2\right)^{5/2}}+\frac{b^3\,\text{Cosh}[x]}{\left(a^2-b^2\right)^2}-\frac{b\,\text{Cosh}[x]^3}{3\left(a^2-b^2\right)}-\frac{a\,b^2\,\text{Sinh}[x]}{\left(a^2-b^2\right)^2}+\frac{a\,\text{Sinh}[x]}{a^2-b^2}+\frac{a\,\text{Sinh}[x]^3}{3\left(a^2-b^2\right)}$$

$$\frac{1}{12\,(a-b)^{5/2}\,(a+b)^3\,(a+b\,\text{Tanh}[x])}$$

$$\text{Sech}[x]\,(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])\left(24\,b^4\,\sqrt{a+b}\,\,\text{ArcTan}\left[\frac{b+a\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a-b}\,\,\sqrt{a+b}}\right]-3\,\sqrt{a-b}\,\,b\left(a^3+a^2\,b-5\,a\,b^2-5\,b^3\right)\text{Cosh}[x]-\right.$$

$$(a-b)^{3/2}\,b\,(a+b)^2\,\text{Cosh}[3\,x]+9\,a^4\,\sqrt{a-b}\,\,\text{Sinh}[x]+9\,a^3\,\sqrt{a-b}\,\,b\,\text{Sinh}[x]-21\,a^2\,\sqrt{a-b}\,\,b^2\,\text{Sinh}[x]-$$

$$\left.21\,a\,\sqrt{a-b}\,\,b^3\,\text{Sinh}[x]+a^4\,\sqrt{a-b}\,\,\text{Sinh}[3\,x]+a^3\,\sqrt{a-b}\,\,b\,\text{Sinh}[3\,x]-a^2\,\sqrt{a-b}\,\,b^2\,\text{Sinh}[3\,x]-a\,\sqrt{a-b}\,\,b^3\,\text{Sinh}[3\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{1+\text{Tanh}[x]},\ x,\ 5,\ 0\right\}$$

$$\frac{3\,x}{2}-\text{Coth}[x]-\text{Log}[\text{Sinh}[x]]-\frac{1}{2\,(1+\text{Tanh}[x])}$$

$$-\frac{1}{4\,(1+\text{Tanh}[x])}\left(4-6\,x+\text{Cosh}[x]^2+4\,\text{Coth}[x]+4\,\text{Log}[\text{Sinh}[x]]-\right.$$

$$\left.\text{Cosh}[x]\,\text{Sinh}[x]-\text{Sinh}[x]^2-6\,x\,\text{Tanh}[x]+4\,\text{Log}[\text{Sinh}[x]]\,\text{Tanh}[x]+\text{Sinh}[x]^2\,\text{Tanh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^3}{1+\text{Tanh}[x]},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,x}{2}+\text{Coth}[x]-\frac{\text{Coth}[x]^2}{2}+2\,\text{Log}[\text{Sinh}[x]]+\frac{1}{2\,(1+\text{Tanh}[x])}$$

$$\frac{1}{4\,(1+\text{Tanh}[x])}$$

$$\left(\text{Cosh}[2\,x]\,(1+\text{Tanh}[x])-2\left(-2+3\,x-2\,\text{Coth}[x]+\text{Csch}[x]^2-4\,\text{Log}[\text{Sinh}[x]]+\text{Csch}[x]\,\text{Sech}[x]+\text{Cosh}[x]\,\text{Sinh}[x]+\right.\right.$$

$$\left.\left.\text{Sinh}[x]^2+3\,x\,\text{Tanh}[x]-4\,\text{Log}[\text{Sinh}[x]]\,\text{Tanh}[x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^2}{a+b\,\text{Tanh}[x]},\ x,\ 2,\ 0\right\}$$

$$\frac{\text{Log}[a+b\,\text{Tanh}[x]]}{b}$$

$$\frac{-\text{Log}[\text{Cosh}[x]]+\text{Log}[-a\,\text{Cosh}[x]-b\,\text{Sinh}[x]]}{b}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^3}{1+\text{Tanh}[x]},\ x,\ 4,\ 0\right\}$$

$$\text{ArcTan}[\text{Sinh}[x]]+\text{Sech}[x]$$

$$2\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]+\text{Sech}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^4}{a+b\,\text{Tanh}[x]},\ x,\ 5,\ 0\right\}$$

$$\frac{\left(a^2-b^2\right)\text{Coth}[x]}{a^3}+\frac{b\,\text{Coth}[x]^2}{2\,a^2}-\frac{\text{Coth}[x]^3}{3\,a}-\frac{b\left(a^2-b^2\right)\text{Log}[b+a\,\text{Coth}[x]]}{a^4}$$

$$\frac{1}{6\,a^4\,(a+b\,\text{Tanh}[x])}\left(-2\,\text{Coth}[x]\left(-2\,a^4+3\,a^2\,b^2+a^4\,\text{Csch}[x]^2\right)+\right.$$
$$b\left(a^3\,\text{Csch}[x]^2+2\,a\left(2\,a^2-3\,b^2+3\left(a^2-b^2\right)\text{Log}[\text{Sinh}[x]]-3\left(a^2-b^2\right)\text{Log}[a\,\text{Cosh}[x]+b\,\text{Sinh}[x]]\right)+$$
$$\left.3\,a^2\,b\,\text{Csch}[x]\,\text{Sech}[x]+6\,b\left(a^2-b^2\right)(\text{Log}[\text{Sinh}[x]]-\text{Log}[a\,\text{Cosh}[x]+b\,\text{Sinh}[x]])\,\text{Tanh}[x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]}{1+\text{Tanh}[x]},\ x,\ 4,\ 0\right\}$$

$$-\text{ArcCoth}[\text{Cosh}[x]]+\text{Cosh}[x]-\text{Sinh}[x]$$

$$\frac{\text{Cosh}[x]-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]-\left(\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+\text{Sinh}[x]\right)\text{Tanh}[x]}{1+\text{Tanh}[x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^3}{1+\text{Tanh}[x]},\ x,\ 5,\ 0\right\}$$

$$-\frac{1}{2}\,\text{ArcCoth}[\text{Cosh}[x]]+\text{Csch}[x]-\frac{1}{2}\,\text{Coth}[x]\,\text{Csch}[x]$$

$$\frac{1}{8}\left(4\,\text{Coth}\left[\frac{x}{2}\right]-\text{Csch}\left[\frac{x}{2}\right]^2-4\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+4\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-\text{Sech}\left[\frac{x}{2}\right]^2-4\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

PossibleZeroQ::ztest1 :

Unable to decide whether numeric quantity $-\sqrt{1-i}+\sqrt{1+i}-\sqrt{-1+i}\,\sqrt{1+i}\,\sqrt{-1+\sqrt{1-i}\,\sqrt{1+i}}$ is equal to zero. Assuming it is. ≫

PossibleZeroQ::ztest1 : Unable to decide whether numeric quantity

$$-1+\text{Abs}\left[\sqrt{1-i}+\sqrt{1+i}\right]\Big/\left((2\,\text{Im}[\ll 1\gg]+2\,\text{Im}[\ll 1\gg]\,\text{Re}[\ll 1\gg]-2\,\text{Im}[\ll 1\gg]\,\text{Re}[\ll 1\gg])^2+\left(-\text{Power}[\ll 2\gg]+\text{Im}\right.\right.$$

$$\left.\left.[\ll 1\gg]^2+2\,\text{Plus}[\ll 2\gg]+\text{Re}[\ll 1\gg]^2-\text{Power}[\ll 2\gg]\right)^2\right)^{1/4}$$

is equal to zero. Assuming it is. ≫

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]^2}{1+\text{Coth}[x]},\ x,\ 5,\ 0\right\}$$

$$\frac{3\,x}{2}-\text{Log}[\text{Cosh}[x]]-\text{Tanh}[x]+\frac{1}{2\,(1+\text{Tanh}[x])}$$

$$-\frac{4-6\,x+2\,\text{Cosh}[x]^2-6\,x\,\text{Coth}[x]-\text{Cosh}[2\,x]\,(1+\text{Coth}[x])+4\,\text{Log}[\text{Cosh}[x]]+4\,\text{Coth}[x]\,\text{Log}[\text{Cosh}[x]]+\text{Sinh}[2\,x]+4\,\text{Tanh}[x]}{4\,(1+\text{Coth}[x])}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]^3}{1+\text{Coth}[x]},\ x,\ 7,\ 0\right\}$$

$$-\frac{3\,x}{2}+2\,\text{Log}[\text{Cosh}[x]]+\text{Tanh}[x]-\frac{\text{Tanh}[x]^2}{2}-\frac{1}{2\,(1+\text{Tanh}[x])}$$

$$\frac{1}{4\,(1+\text{Coth}[x])}\left(4-6\,x-\text{Cosh}[x]^2\,(-1+\text{Coth}[x])+8\,\text{Log}[\text{Cosh}[x]]+\right.$$
$$\left.\text{Coth}[x]\,(-6\,x+8\,\text{Log}[\text{Cosh}[x]])+2\,\text{Csch}[x]\,\text{Sech}[x]+2\,\text{Sech}[x]^2+\text{Cosh}[x]\,\text{Sinh}[x]-\text{Sinh}[x]^2+4\,\text{Tanh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^4}{a+b\,\text{Coth}[x]},\ x,\ 5,\ 0\right\}$$

$$-\frac{b\left(a^2-b^2\right)\text{Log}[b+a\,\text{Tanh}[x]]}{a^4}+\frac{\left(a^2-b^2\right)\text{Tanh}[x]}{a^3}+\frac{b\,\text{Tanh}[x]^2}{2\,a^2}-\frac{\text{Tanh}[x]^3}{3\,a}$$

$$\frac{1}{6\,a^4\,(a+b\,\text{Coth}[x])}\left(6\,b^2\left(a^2-b^2\right)\text{Coth}[x]\,(\text{Log}[\text{Cosh}[x]]-\text{Log}[b\,\text{Cosh}[x]+a\,\text{Sinh}[x]])+\right.$$
$$a\left(4\,a^2\,b-6\,b^3+6\,a^2\,b\,\text{Log}[\text{Cosh}[x]]-6\,b^3\,\text{Log}[\text{Cosh}[x]]-6\,a^2\,b\,\text{Log}[b\,\text{Cosh}[x]+a\,\text{Sinh}[x]]+6\,b^3\,\text{Log}[b\,\text{Cosh}[x]+a\,\text{Sinh}[x]]-\right.$$
$$\left.\left.3\,a\,b^2\,\text{Csch}[x]\,\text{Sech}[x]+a^2\,\text{Sech}[x]^3\,(-b\,\text{Cosh}[x]+2\,a\,\text{Sinh}[x])+4\,a^3\,\text{Tanh}[x]-6\,a\,b^2\,\text{Tanh}[x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]}{1+\text{Coth}[x]},\ x,\ 4,\ 0\right\}$$

$$\text{ArcTan}[\text{Sinh}[x]]+\text{Cosh}[x]-\text{Sinh}[x]$$

$$\frac{2\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]+\left(2\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]+\text{Cosh}[x]\right)\text{Coth}[x]-\text{Sinh}[x]}{1+\text{Coth}[x]}$$

Incorrect antiderivative:

$$\left\{\frac{\text{Sech}[x]}{i+2\,\text{Coth}[x]},\ x,\ 4,\ 0\right\}$$

$$-i\,\text{ArcTan}[\text{Sinh}[x]] + \frac{4\,i\,\text{ArcTan}\left[\frac{i+2\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{5}}\right]}{\sqrt{5}}$$

$$-\frac{1}{\left(\sqrt{2-i}-\sqrt{2+i}\right)\sqrt{10\left(2+\sqrt{5}\right)}}$$

$$i\left(-2\,i\,\sqrt{9+4\sqrt{5}}\;\text{ArcTan}\left[\frac{-5-(2+i)\sqrt{5}-(2+i)\left(2+\sqrt{5}\right)\left((9-2\,i)-(4-i)\sqrt{5}+\sqrt{(-4+2\,i)\left(-2+\sqrt{5}\right)}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{(-20-10\,i)\left(-2+\sqrt{5}\right)}}\right]+\right.$$

$$2\sqrt{9+4\sqrt{5}}\;\text{ArcTanh}\left[\frac{-\sqrt{2-i}-\sqrt{2+i}+\left(\sqrt{2-i}-\sqrt{2+i}+i\sqrt{2\left(2+\sqrt{5}\right)}\right)\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{2\left(-2+\sqrt{5}\right)}}\right]+$$

$$\left(2-5\sqrt{9+4\sqrt{5}}+2\sqrt{5\left(9+4\sqrt{5}\right)}\right)$$

$$\left(\text{Log}\left[(2+i)\left(\sqrt{(-4+2\,i)\left(2+\sqrt{5}\right)}-\left((-2+i)+\sqrt{5}\right)\text{Cosh}[x]-\left((2-i)+\sqrt{5}\right)\text{Sinh}[x]\right)\right]-\right.$$

$$\left.\left.\text{Log}\left[i\sqrt{10\left(2+\sqrt{5}\right)}+\left(-\sqrt{10-5\,i}+\sqrt{10+5\,i}\right)\text{Cosh}[x]+\left(\sqrt{10-5\,i}+\sqrt{10+5\,i}\right)\text{Sinh}[x]\right]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^3}{1+\text{Coth}[x]},\,x,\,4,\,0\right\}$$

$$\text{ArcCoth}[\text{Cosh}[x]]-\text{Csch}[x]$$

$$-\text{Csch}[x]+\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{i+\text{Csch}[x]},\,x,\,3,\,0\right\}$$

$$-i\,x-\text{ArcCoth}[\text{Cosh}[x]]$$

$$-i\,x-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^4}{i+\text{Csch}[x]},\,x,\,6,\,0\right\}$$

$$-i\,x-\frac{1}{2}\,\text{ArcCoth}[\text{Cosh}[x]]+i\,\text{Coth}[x]-\frac{1}{2}\,\text{Coth}[x]\,\text{Csch}[x]$$

$$-\frac{1}{8}\,i\left(8\,x-4\,\text{Coth}\left[\frac{x}{2}\right]-i\,\text{Csch}\left[\frac{x}{2}\right]^2-4\,i\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+4\,i\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-i\,\text{Sech}\left[\frac{x}{2}\right]^2-4\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^2}{i+\text{Csch}[x]},\,x,\,6,\,0\right\}$$

$$-\text{ArcCoth}[\text{Cosh}[x]]+\frac{i\,\text{Cosh}[x]}{i-\text{Sinh}[x]}$$

$$-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]-\frac{2\,i\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]+i\,\text{Sinh}\left[\frac{x}{2}\right]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^3}{i+\text{Csch}[x]},\,x,\,7,\,0\right\}$$

$$i\,\text{ArcCoth}[\text{Cosh}[x]]-\text{Coth}[x]+\frac{\text{Cosh}[x]}{i-\text{Sinh}[x]}$$

$$-\frac{1}{2}\,\text{Coth}\left[\frac{x}{2}\right]+i\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-i\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-\frac{2\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]+i\,\text{Sinh}\left[\frac{x}{2}\right]}-\frac{1}{2}\,\text{Tanh}\left[\frac{x}{2}\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^4}{i+\text{Csch}[x]},\,x,\,9,\,0\right\}$$

$$\frac{3}{2}\,\text{ArcCoth}[\text{Cosh}[x]]+i\,\text{Coth}[x]-\frac{1}{2}\,\text{Coth}[x]\,\text{Csch}[x]-\frac{i\,\text{Cosh}[x]}{i-\text{Sinh}[x]}$$

$$\frac{1}{8}\left(4\,i\,\text{Coth}\left[\frac{x}{2}\right]-\text{Csch}\left[\frac{x}{2}\right]^2+12\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-12\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]-\text{Sech}\left[\frac{x}{2}\right]^2+\frac{16\,\text{Sinh}\left[\frac{x}{2}\right]}{-i\,\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]}+4\,i\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sinh}[x]^2}{(i+\text{Sinh}[x])^2},\,x,\,5,\,0\right\}$$

$$x+\frac{5\,i\,\text{Cosh}[x]}{3\,(1-i\,\text{Sinh}[x])}+\frac{i\,\text{Cosh}[x]}{3\,(i+\text{Sinh}[x])^2}$$

$$\frac{3\,(-4\,i+3\,x)\,\text{Cosh}\left[\frac{x}{2}\right]+(10\,i-3\,x)\,\text{Cosh}\left[\frac{3\,x}{2}\right]-6\,i\,(-3\,i+2\,x+x\,\text{Cosh}[x])\,\text{Sinh}\left[\frac{x}{2}\right]}{6\left(\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]\right)^3}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{(i+\text{Sinh}[x])^2},\,x,\,5,\,0\right\}$$

$$2\,i\,\text{ArcCoth}[\text{Cosh}[x]]+\text{Coth}[x]-\frac{2\,i\,\text{Cosh}[x]}{1-i\,\text{Sinh}[x]}$$

$$\frac{1}{2}\left(\text{Coth}\left[\frac{x}{2}\right]+4\,i\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-4\,i\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+\frac{8\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}+\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^3}{(i+\text{Sinh}[x])^2},\,x,\,5,\,0\right\}$$

$$2\,i\,\text{Csch}[x]+\frac{\text{Csch}[x]^2}{2}+2\,\text{Log}[\text{Sinh}[x]]-2\,\text{Log}[i+\text{Sinh}[x]]$$

$$-4\,i\,\text{ArcTan}\left[\text{Coth}\left[\frac{x}{2}\right]\right]+i\,\text{Coth}\left[\frac{x}{2}\right]+\frac{1}{8}\,\text{Csch}\left[\frac{x}{2}\right]^2-2\,\text{Log}[4\,\text{Cosh}[x]]+2\,\text{Log}[\text{Sinh}[x]]-\frac{1}{8}\,\text{Sech}\left[\frac{x}{2}\right]^2-i\,\text{Tanh}\left[\frac{x}{2}\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]}{(i+\text{Sinh}[x])^2},\,x,\,6,\,0\right\}$$

$$\text{ArcCoth}[\text{Cosh}[x]]-\frac{4\,\text{Cosh}[x]}{3\,(1-i\,\text{Sinh}[x])}+\frac{\text{Cosh}[x]}{3\,(i+\text{Sinh}[x])^2}$$

$$\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]-\frac{i}{3\,i+3\,\text{Sinh}[x]}-\frac{2\,\text{Sinh}\left[\frac{x}{2}\right]\,(5\,i+4\,\text{Sinh}[x])}{3\left(\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]\right)^3}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^2}{(i+\text{Sinh}[x])^2},\,x,\,7,\,0\right\}$$

$$2\,i\,\text{ArcCoth}[\text{Cosh}[x]]+\text{Coth}[x]-\frac{7\,i\,\text{Cosh}[x]}{3\,(1-i\,\text{Sinh}[x])}+\frac{i\,\text{Cosh}[x]}{3\,(i+\text{Sinh}[x])^2}$$

$$\frac{1}{6}\left(3\,\text{Coth}\left[\frac{x}{2}\right]+12\,i\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-12\,i\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+\frac{2}{i+\text{Sinh}[x]}-\frac{4\,\text{Sinh}\left[\frac{x}{2}\right]\,(8\,i+7\,\text{Sinh}[x])}{\left(i\,\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]\right)^3}+3\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Csch}[x]^3}{(i+\text{Sinh}[x])^2},\,x,\,9,\,0\right\}$$

$$-\frac{7}{2}\,\text{ArcCoth}[\text{Cosh}[x]]+2\,i\,\text{Coth}[x]+\frac{1}{2}\,\text{Coth}[x]\,\text{Csch}[x]+\frac{10\,\text{Cosh}[x]}{3\,(1-i\,\text{Sinh}[x])}-\frac{\text{Cosh}[x]}{3\,(i+\text{Sinh}[x])^2}$$

$$\frac{1}{24}\left(24\,i\,\text{Coth}\left[\frac{x}{2}\right]+3\,\text{Csch}\left[\frac{x}{2}\right]^2-84\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+84\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+\right.$$

$$\left.3\,\text{Sech}\left[\frac{x}{2}\right]^2+\frac{8}{\left(\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]\right)^2}+\frac{160\,i\,\text{Sinh}\left[\frac{x}{2}\right]}{\text{Cosh}\left[\frac{x}{2}\right]-i\,\text{Sinh}\left[\frac{x}{2}\right]}+\frac{16\,\text{Sinh}\left[\frac{x}{2}\right]}{\left(i\,\text{Cosh}\left[\frac{x}{2}\right]+\text{Sinh}\left[\frac{x}{2}\right]\right)^3}+24\,i\,\text{Tanh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Cosh}[x]^3}{(1-i\,\text{Sinh}[x])^3},\,x,\,6,\,0\right\}$$

$$-i \operatorname{Log}[i + \operatorname{Sinh}[x]] + \frac{2}{i + \operatorname{Sinh}[x]}$$

$$\frac{2 - 2\,i \operatorname{ArcTan}\left[\operatorname{Tanh}\left[\frac{x}{2}\right]\right] + \operatorname{Log}[\operatorname{Cosh}[x]] - 2 \operatorname{ArcTan}\left[\operatorname{Tanh}\left[\frac{x}{2}\right]\right] \operatorname{Sinh}[x] - i \operatorname{Log}[\operatorname{Cosh}[x]] \operatorname{Sinh}[x]}{i + \operatorname{Sinh}[x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\operatorname{Cosh}[x]^3}{1 - \operatorname{Sinh}[x]^2}, x, 4, 0\right\}$$

$$2 \operatorname{ArcTanh}[\operatorname{Sinh}[x]] - \operatorname{Sinh}[x]$$

$$-\operatorname{Log}[2\,(-1 + \operatorname{Sinh}[x])] + \operatorname{Log}[2\,(1 + \operatorname{Sinh}[x])] - \operatorname{Sinh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x \operatorname{Sech}[c + d x]^2}{a + b \operatorname{Tanh}[c + d x]^2}, x, 10, 0\right\}$$

$$\frac{x \operatorname{Log}\left[1 + \frac{(a+b)\, e^{2c+2dx}}{a-2\sqrt{-a}\,\sqrt{b}\,-b}\right]}{2\sqrt{-a}\,\sqrt{b}\,d} - \frac{x \operatorname{Log}\left[1 + \frac{(a+b)\, e^{2c+2dx}}{a+2\sqrt{-a}\,\sqrt{b}\,-b}\right]}{2\sqrt{-a}\,\sqrt{b}\,d} + \frac{\operatorname{PolyLog}\left[2, -\frac{(a+b)\, e^{2c+2dx}}{a-2\sqrt{-a}\,\sqrt{b}\,-b}\right]}{4\sqrt{-a}\,\sqrt{b}\,d^2} - \frac{\operatorname{PolyLog}\left[2, -\frac{(a+b)\, e^{2c+2dx}}{a+2\sqrt{-a}\,\sqrt{b}\,-b}\right]}{4\sqrt{-a}\,\sqrt{b}\,d^2}$$

$$-\frac{1}{4\sqrt{a\,b}\,d^2}\left(4\,(c + d x) \operatorname{ArcTan}\left[\frac{a \operatorname{Coth}[c + d x]}{\sqrt{a\,b}}\right] + 2\left(2c - i \operatorname{ArcCos}\left[\frac{-a+b}{a+b}\right]\right) \operatorname{ArcTan}\left[\frac{b \operatorname{Tanh}[c + d x]}{\sqrt{a\,b}}\right] + \left(\operatorname{ArcCos}\left[\frac{-a+b}{a+b}\right] + 2\left(\operatorname{ArcTan}\left[\frac{a \operatorname{Coth}[c + d x]}{\sqrt{a\,b}}\right] + \operatorname{ArcTan}\left[\frac{b \operatorname{Tanh}[c + d x]}{\sqrt{a\,b}}\right]\right)\right) \operatorname{Log}\left[\frac{\sqrt{2}\,\sqrt{a\,b}\; e^{-c-dx}}{\sqrt{a+b}\,\sqrt{a - b + (a + b) \operatorname{Cosh}[2\,(c + d x)]}}\right] + \left(\operatorname{ArcCos}\left[\frac{-a+b}{a+b}\right] - 2\left(\operatorname{ArcTan}\left[\frac{a \operatorname{Coth}[c + d x]}{\sqrt{a\,b}}\right] + \operatorname{ArcTan}\left[\frac{b \operatorname{Tanh}[c + d x]}{\sqrt{a\,b}}\right]\right)\right) \operatorname{Log}\left[\frac{\sqrt{2}\,\sqrt{a\,b}\; e^{c+dx}}{\sqrt{a+b}\,\sqrt{a - b + (a + b) \operatorname{Cosh}[2\,(c + d x)]}}\right] - \left(\operatorname{ArcCos}\left[\frac{-a+b}{a+b}\right] + 2 \operatorname{ArcTan}\left[\frac{b \operatorname{Tanh}[c + d x]}{\sqrt{a\,b}}\right]\right) \operatorname{Log}\left[\frac{2a\left(b - i\sqrt{a\,b}\right) \operatorname{Sech}[c + d x]\,(\operatorname{Cosh}[c + d x] - \operatorname{Sinh}[c + d x])}{(a + b)\left(a + i\sqrt{a\,b}\,\operatorname{Tanh}[c + d x]\right)}\right] - \left(\operatorname{ArcCos}\left[\frac{-a+b}{a+b}\right] - 2 \operatorname{ArcTan}\left[\frac{b \operatorname{Tanh}[c + d x]}{\sqrt{a\,b}}\right]\right) \operatorname{Log}\left[\frac{2a\left(b + i\sqrt{a\,b}\right) \operatorname{Sech}[c + d x]\,(\operatorname{Cosh}[c + d x] + \operatorname{Sinh}[c + d x])}{(a + b)\left(a + i\sqrt{a\,b}\,\operatorname{Tanh}[c + d x]\right)}\right] + i\left(-\operatorname{PolyLog}\left[2, \frac{\left(-a + b - 2i\sqrt{a\,b}\right)\left(-a + i\sqrt{a\,b}\,\operatorname{Tanh}[c + d x]\right)}{(a + b)\left(a + i\sqrt{a\,b}\,\operatorname{Tanh}[c + d x]\right)}\right] + \operatorname{PolyLog}\left[2, \frac{\left(-a + b + 2i\sqrt{a\,b}\right)\left(i\,a + \sqrt{a\,b}\,\operatorname{Tanh}[c + d x]\right)}{(a + b)\left(-i\,a + \sqrt{a\,b}\,\operatorname{Tanh}[c + d x]\right)}\right]\right)\right)$$

Unable to integrate:

$$\left\{\frac{x^2 \operatorname{Sech}[c + d x]^2}{a + b \operatorname{Tanh}[c + d x]^2}, x, 12, 0\right\}$$

$$\frac{x^2 \operatorname{Log}\left[1+\frac{(a+b)\, e^{2c+2dx}}{a-2\sqrt{-a}\,\sqrt{b}-b}\right]}{2\sqrt{-a}\,\sqrt{b}\,d}-\frac{x^2 \operatorname{Log}\left[1+\frac{(a+b)\, e^{2c+2dx}}{a+2\sqrt{-a}\,\sqrt{b}-b}\right]}{2\sqrt{-a}\,\sqrt{b}\,d}+\frac{x \operatorname{PolyLog}\left[2,-\frac{(a+b)\, e^{2c+2dx}}{a-2\sqrt{-a}\,\sqrt{b}-b}\right]}{2\sqrt{-a}\,\sqrt{b}\,d^2}-$$

$$\frac{x \operatorname{PolyLog}\left[2,-\frac{(a+b)\, e^{2c+2dx}}{a+2\sqrt{-a}\,\sqrt{b}-b}\right]}{2\sqrt{-a}\,\sqrt{b}\,d^2}-\frac{\operatorname{PolyLog}\left[3,-\frac{(a+b)\, e^{2c+2dx}}{a-2\sqrt{-a}\,\sqrt{b}-b}\right]}{4\sqrt{-a}\,\sqrt{b}\,d^3}+\frac{\operatorname{PolyLog}\left[3,-\frac{(a+b)\, e^{2c+2dx}}{a+2\sqrt{-a}\,\sqrt{b}-b}\right]}{4\sqrt{-a}\,\sqrt{b}\,d^3}$$

$$\int \frac{x^2 \operatorname{Sech}[c+dx]^2}{a+b \operatorname{Tanh}[c+dx]^2}\,dx$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\operatorname{Coth}[x]^3}{a+b \operatorname{Sinh}[x]^3}, x, 10, 0\right\}$$

$$\frac{b^{2/3} \operatorname{ArcTan}\left[\frac{a^{1/3}-2b^{1/3}\operatorname{Sinh}[x]}{\sqrt{3}\,a^{1/3}}\right]}{\sqrt{3}\,a^{5/3}}-\frac{\operatorname{Csch}[x]^2}{2a}+\frac{\operatorname{Log}[\operatorname{Sinh}[x]]}{a}-$$

$$\frac{b^{2/3} \operatorname{Log}\left[a^{1/3}+b^{1/3}\operatorname{Sinh}[x]\right]}{3a^{5/3}}+\frac{b^{2/3} \operatorname{Log}\left[a^{2/3}-a^{1/3}b^{1/3}\operatorname{Sinh}[x]+b^{2/3}\operatorname{Sinh}[x]^2\right]}{6a^{5/3}}-\frac{\operatorname{Log}\left[a+b \operatorname{Sinh}[x]^3\right]}{3a}$$

$$-\frac{1}{24a}\left(8 \operatorname{RootSum}\left[-b+3b\#1^2+8a\#1^3-3b\#1^4+b\#1^6\&,\right.\right.$$

$$\left.\frac{-bx+b \operatorname{Log}[-e^x+\#1]+4ax\#1^3-4a \operatorname{Log}[-e^x+\#1]\#1^3-3bx\#1^4+3b \operatorname{Log}[-e^x+\#1]\#1^4}{b-2b\#1^2-4a\#1^3+b\#1^4}\&\right]+$$

$$\left.3\left(8x+\operatorname{Csch}\left[\frac{x}{2}\right]^2-8 \operatorname{Log}[\operatorname{Sinh}[x]]-\operatorname{Sech}\left[\frac{x}{2}\right]^2\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\operatorname{Tanh}[x]^3}{a+b \operatorname{Cosh}[x]^3}, x, 10, 0\right\}$$

$$-\frac{b^{2/3} \operatorname{ArcTan}\left[\frac{a^{1/3}-2b^{1/3}\operatorname{Cosh}[x]}{\sqrt{3}\,a^{1/3}}\right]}{\sqrt{3}\,a^{5/3}}+\frac{\operatorname{Log}[\operatorname{Cosh}[x]]}{a}+\frac{b^{2/3} \operatorname{Log}\left[a^{1/3}+b^{1/3}\operatorname{Cosh}[x]\right]}{3a^{5/3}}-$$

$$\frac{b^{2/3} \operatorname{Log}\left[a^{2/3}-a^{1/3}b^{1/3}\operatorname{Cosh}[x]+b^{2/3}\operatorname{Cosh}[x]^2\right]}{6a^{5/3}}-\frac{\operatorname{Log}\left[a+b \operatorname{Cosh}[x]^3\right]}{3a}+\frac{\operatorname{Sech}[x]^2}{2a}$$

$$\frac{1}{6a}\left(-6x+6 \operatorname{Log}[\operatorname{Cosh}[x]]-2 \operatorname{RootSum}\left[b+3b\#1^2+8a\#1^3+3b\#1^4+b\#1^6\&,\right.\right.$$

$$\left.\left.\frac{-bx+b \operatorname{Log}[-e^x+\#1]-4ax\#1^3+4a \operatorname{Log}[-e^x+\#1]\#1^3-3bx\#1^4+3b \operatorname{Log}[-e^x+\#1]\#1^4}{b+2b\#1^2+4a\#1^3+b\#1^4}\&\right]+3 \operatorname{Sech}[x]^2\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\operatorname{Coth}[x]}{\sqrt{1+\operatorname{Coth}[x]}}, x, 6, 0\right\}$$

$$\frac{\operatorname{ArcTanh}\left[\frac{\sqrt{1+\operatorname{Coth}[x]}}{\sqrt{2}}\right]}{\sqrt{2}}+\frac{1}{\sqrt{1+\operatorname{Coth}[x]}}$$

$$\frac{1}{(i\,(1+\text{Coth}[x]))^{3/2}}\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{1+\text{Coth}[x]}$$

$$\left(\text{ArcTan}\left[\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{i\,(1+\text{Coth}[x])}\,\right]+\text{ArcTan}\left[\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{i\,(1+\text{Coth}[x])}\,\right]\text{Coth}[x]+(1+i)\sqrt{i\,(1+\text{Coth}[x])}\right)$$

Incorrect antiderivative:

$$\left\{\sqrt{1+\text{Coth}[x]}\ \text{Sech}[x]^2,\ x,\ 4,\ 0\right\}$$

$$\text{ArcTanh}\left[\sqrt{1+\text{Coth}[x]}\,\right]+\sqrt{1+\text{Coth}[x]}\ \text{Tanh}[x]$$

$$\frac{1}{2\sqrt{\text{Csch}[x]}\ \sqrt{\text{Cosh}[x]+\text{Sinh}[x]}}$$

$$\sqrt{1+\text{Coth}[x]}\left(\frac{(1-i)\,\text{ArcTan}\left[\left(\frac{1}{2}+\frac{i}{2}\right)\sqrt{i+i\,\text{Coth}[x]}\,\right]\sqrt{\text{Csch}[x]}\ \sqrt{\text{Cosh}[x]+\text{Sinh}[x]}}{\sqrt{i+i\,\text{Coth}[x]}}+\left(\frac{1}{2}+\frac{i}{2}\right)\right.$$

$$\left(2\,(-1)^{1/4}\,\text{ArcTan}\left[\frac{(2+i)+2\sqrt{-1-i}\,\left(1+(-1)^{1/4}\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}\right)\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}+2\,(-1)^{1/4}\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}-\text{Tanh}\left[\frac{x}{2}\right]}{(-2-i)-2\sqrt{-1-i}\,\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}+(1+2\,i)\,\text{Tanh}\left[\frac{x}{2}\right]}\right]+\right.$$

$$2\,(-1)^{1/4}\,\text{ArcTan}\left[\frac{(2+i)+(-1-i)^{3/2}\left((1-i)+\sqrt{2}\,\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}\right)\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}+2\,(-1)^{1/4}\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}-\text{Tanh}\left[\frac{x}{2}\right]}{(-2-i)+2\sqrt{-1-i}\,\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}+(1+2\,i)\,\text{Tanh}\left[\frac{x}{2}\right]}\right]+$$

$$(-1)^{3/4}\,\text{Log}\left[\left(\sqrt{-1-i}-\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}\right)^2\right]+(-1)^{3/4}\,\text{Log}\left[\left(\sqrt{-1+i}-\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}\right)^2\right]+$$

$$(-1)^{3/4}\,\text{Log}\left[\left(\sqrt{-1-i}+\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}\right)^2\right]+(-1)^{3/4}\,\text{Log}\left[\left(\sqrt{-1+i}+\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}\right)^2\right]-(-1)^{3/4}$$

$$\text{Log}\left[32\left((1-i)\left(1+\sqrt{2}\,\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}\right)-\frac{2\left((1+i)+i\sqrt{2}\,\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}\right)\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}}{\sqrt{-1+i}}+(2+i)\left(-1+\text{Tanh}\left[\frac{x}{2}\right]\right)\right)\right]-$$

$$(4-4\,i)\,\text{Log}\left[4\left(1+\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}\right)\right]-(-1)^{3/4}\,\text{Log}\left[-32\left((1+2\,i)+2\,i\,\sqrt{-1+i}\,\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}-\right.\right.$$

$$\left.(1-i)\left(\sqrt{2}+\sqrt{-2+2\,i}\,\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}\right)\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}-(2+i)\,\text{Tanh}\left[\frac{x}{2}\right]\right)\Bigg]-$$

$$(-1)^{3/4}\,\text{Log}\left[-32\,i\left((2+i)+2\sqrt{-1-i}\,\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}-\text{Tanh}\left[\frac{x}{2}\right]\right)\right]+(2-2\,i)\,\text{Log}\left[-1+\text{Tanh}\left[\frac{x}{2}\right]\right]-$$

$$\left.(-1)^{3/4}\,\text{Log}\left[32\,i\left((-2-i)+2\sqrt{-1-i}\,\sqrt{-1+\text{Tanh}\left[\frac{x}{2}\right]}+\text{Tanh}\left[\frac{x}{2}\right]\right)\right]\right)$$

$$\sqrt{\text{Cosh}[x]+\text{Sinh}[x]}\,\sqrt{-\left(-1+\text{Tanh}\left[\frac{x}{2}\right]\right)\left(1+\text{Tanh}\left[\frac{x}{2}\right]\right)^3}\Bigg/$$

$$\left(\sqrt{2}\,(1+\text{Cosh}[x])\sqrt{\frac{\text{Cosh}[x]+\text{Sinh}[x]}{(1+\text{Cosh}[x])^2}}\,\sqrt{\text{Coth}\left[\frac{x}{2}\right]-\text{Tanh}\left[\frac{x}{2}\right]}\,\sqrt{\text{Tanh}\left[\frac{x}{2}\right]}\,\left(1+\text{Tanh}\left[\frac{x}{2}\right]\right)\right)+\sqrt{1+\text{Coth}[x]}\,\text{Tanh}[x]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{1+\text{Sinh}[x]^2}},\,x,\,2,\,0\right\}$$

$$-\text{ArcTanh}\left[\sqrt{\text{Cosh}[x]^2}\,\right]$$

$$\frac{\text{Cosh}[x]\left(-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)}{\sqrt{\text{Cosh}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]^3}{\sqrt{a+b\,\text{Tanh}[x]^2}},\,x,\,6,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]}{\sqrt{a+b}}-\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{b}$$

$$\frac{1}{2}\left(-\frac{\sqrt{2}}{b}+\frac{2\,\text{Cosh}[x]\,\text{Log}\left[\sqrt{2}\,\sqrt{a+b}\,\text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2\,x]}\,\right]}{\sqrt{a+b}\,\sqrt{a-b+(a+b)\,\text{Cosh}[2\,x]}}\right)\sqrt{(a-b+(a+b)\,\text{Cosh}[2\,x])\,\text{Sech}[x]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]^2}{\sqrt{a+b\,\text{Tanh}[x]^2}},\,x,\,5,\,0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{b}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]}{\sqrt{b}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]}{\sqrt{a+b}}$$

$$\frac{\left(-\sqrt{a+b}\ \text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{-b}\ \text{Sinh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]+\sqrt{-b}\ \text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]\right)\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \text{Sech}[x]}{\sqrt{-b}\ \sqrt{a+b}\ \sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]}{\sqrt{a+b}}$$

$$\frac{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \text{Log}\left[\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \right]\text{Sech}[x]}{\sqrt{a+b}\ \sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a}}\right]}{\sqrt{a}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]}{\sqrt{a+b}}$$

$$\left(\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\left(-\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a}\ \text{Cosh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]+\sqrt{a}\ \text{Log}\left[\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \right]\right)\text{Sech}[x]\right)\Big/$$
$$\left(\sqrt{a}\ \sqrt{a+b}\ \sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{\sqrt{a+b\,\text{Tanh}[x]^2}},\ x,\ 5,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\ \text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]}{\sqrt{a+b}}-\frac{\text{Coth}[x]\ \sqrt{a+b\,\text{Tanh}[x]^2}}{a}$$

$$\frac{-\sqrt{2}\ \sqrt{a+b}\ (a-b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[2x]+a\,\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \text{Sech}[x]}{a\sqrt{a+b}\ \sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}}$$

Incorrect antiderivative:

$$\left\{\text{Tanh}[x]^3\sqrt{a+b\,\text{Tanh}[x]^2},\ x,\ 7,\ 0\right\}$$

$$\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]-\sqrt{a+b\,\text{Tanh}[x]^2}-\frac{\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}}{3\,b}$$

$$\frac{1}{3\sqrt{2}}\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}\left(-4-\frac{a}{b}-\left(3\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]\right.\right.$$

$$\left.\left(\text{Log}\left[-\sqrt{a+b}\ \text{Sech}\left[\frac{x}{2}\right]^2\right]-\text{Log}\left[2\left(a+b+\frac{\sqrt{a+b}\ \sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}}{\sqrt{2}}+(a+b)\,\text{Tanh}\left[\frac{x}{2}\right]^2\right)\right]\right)$$

$$\text{Sech}\left[\frac{x}{2}\right]^2\Bigg)\Bigg/\left(\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}+\text{Sech}[x]^2\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Tanh}[x]\sqrt{a+b\,\text{Tanh}[x]^2},\ x,\ 4,\ 0\right\}$$

$$\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]-\sqrt{a+b\,\text{Tanh}[x]^2}$$

$$-\frac{1}{\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}}$$

$$\left(\sqrt{\frac{a-b+a\,\text{Cosh}[2x]+b\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[x]+\text{Cosh}[2x]}}+\text{Cosh}[x]\left(\sqrt{\frac{a-b+a\,\text{Cosh}[2x]+b\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[x]+\text{Cosh}[2x]}}+\sqrt{a+b}\ \text{Log}\left[-\sqrt{a+b}\ \text{Sech}\left[\frac{x}{2}\right]^2\right]-\right.\right.$$

$$\left.\left.\sqrt{a+b}\ \text{Log}\left[2\left(a+b+\frac{\sqrt{a+b}\ \sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}}{\sqrt{2}}+(a+b)\,\text{Tanh}\left[\frac{x}{2}\right]^2\right)\right]\right)\right)$$

$$\text{Sech}\left[\frac{x}{2}\right]^2\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Coth}[x]\sqrt{a+b\,\text{Tanh}[x]^2},\ x,\ 7,\ 0\right\}$$

$$-\sqrt{a}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a}}\right]+\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]$$

$$-\frac{1}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}$$

$$\text{Cosh}[x]\left(\sqrt{a}\,\text{ArcTanh}\left[\frac{\sqrt{2}\,\sqrt{a}\,\text{Cosh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]-\sqrt{a+b}\,\text{Log}\left[\sqrt{2}\,\sqrt{a+b}\,\text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\right]\right)$$
$$\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}$$

Incorrect antiderivative:

$$\left\{\text{Tanh}[x]^3\left(a+b\,\text{Tanh}[x]^2\right)^{3/2},\ x,\ 8,\ 0\right\}$$

$$(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]-(a+b)\sqrt{a+b\,\text{Tanh}[x]^2}-\frac{1}{3}\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}-\frac{\left(a+b\,\text{Tanh}[x]^2\right)^{5/2}}{5\,b}$$

$$\frac{1}{15\sqrt{2}}\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}\left(-26\,a-\frac{3\,a^2}{b}-23\,b-\left(15\sqrt{2}\,(a+b)^{3/2}\,\text{Cosh}[x]\right.\right.$$
$$\left.\left(\text{Log}\left[-\sqrt{a+b}\,\text{Sech}\left[\frac{x}{2}\right]^2\right]-\text{Log}\left[2\left(a+b+\frac{\sqrt{a+b}\,\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}}{\sqrt{2}}+(a+b)\,\text{Tanh}\left[\frac{x}{2}\right]^2\right)\right]\right)$$
$$\left.\text{Sech}\left[\frac{x}{2}\right]^2\right)\Big/\left(\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}+(6\,a+11\,b)\,\text{Sech}[x]^2-3\,b\,\text{Sech}[x]^4\right)\Big)$$

Incorrect antiderivative:

$$\left\{\text{Tanh}[x]\left(a+b\,\text{Tanh}[x]^2\right)^{3/2},\ x,\ 6,\ 0\right\}$$

$$(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]-(a+b)\sqrt{a+b\,\text{Tanh}[x]^2}-\frac{1}{3}\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}$$

$$\frac{1}{\sqrt{2}}\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}\left(-\frac{4}{3}(a+b)-\left(\sqrt{2}\,(a+b)^{3/2}\,\text{Cosh}[x]\right.\right.$$
$$\left.\left(\text{Log}\left[-\sqrt{a+b}\,\text{Sech}\left[\frac{x}{2}\right]^2\right]-\text{Log}\left[2\left(a+b+\frac{\sqrt{a+b}\,\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}}{\sqrt{2}}+(a+b)\,\text{Tanh}\left[\frac{x}{2}\right]^2\right)\right]\right)$$
$$\left.\text{Sech}\left[\frac{x}{2}\right]^2\right)\Big/\left(\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}\left[\frac{x}{2}\right]^4}+\frac{1}{3}\,b\,\text{Sech}[x]^2\right)\Big)$$

Incorrect antiderivative:

$$\{\text{Coth}[x]\,(a+b\,\text{Tanh}[x]^2)^{3/2},\ x,\ 8,\ 0\}$$

$$-a^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a}}\right]+(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]-b\sqrt{a+b\,\text{Tanh}[x]^2}$$

$$-b\sqrt{\frac{a-b+a\,\text{Cosh}[2x]+b\,\text{Cosh}[2x]}{1+\text{Cosh}[2x]}}+$$

$$\frac{1}{2}\left(\left(\left(3a^2-2ab-b^2\right)(1+\text{Cosh}[x])\sqrt{\frac{1+\text{Cosh}[2x]}{(1+\text{Cosh}[x])^2}}\sqrt{\frac{a-b+(a+b)\,\text{Cosh}[2x]}{1+\text{Cosh}[2x]}}\left(-\text{Log}\left[\sqrt{a}\,\text{Tanh}\left[\frac{x}{2}\right]^2\right]+\right.\right.\right.$$

$$\text{Log}\left[2\left(a+2b+a\,\text{Tanh}\left[\frac{x}{2}\right]^2+\sqrt{a}\sqrt{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\right)\right]+\text{Log}\left[$$

$$\left.\left.\left.-2\left(a+a\,\text{Tanh}\left[\frac{x}{2}\right]^2+2b\,\text{Tanh}\left[\frac{x}{2}\right]^2+\sqrt{a}\sqrt{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\right)\right]\right)$$

$$\left(-1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)\sqrt{\frac{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}{\left(-1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}}\Bigg)\Bigg/$$

$$\left(4\sqrt{a}\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\sqrt{\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\sqrt{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}+\right.$$

$$\frac{1}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}3\left(a^2+2ab+b^2\right)\sqrt{1+\text{Cosh}[2x]}\sqrt{\frac{a-b+(a+b)\,\text{Cosh}[2x]}{1+\text{Cosh}[2x]}}$$

$$\left(\left(\left(4\,\text{Cosh}[x]^2\sqrt{-2b+a\,(1+\text{Cosh}[2x])+b\,(1+\text{Cosh}[2x])}\,\text{Coth}[x]\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{a}\sqrt{1+\text{Cosh}[2x]}}{\sqrt{b\,(-1+\text{Cosh}[2x])+a\,(1+\text{Cosh}[2x])}}\right]}{\sqrt{a}}+\right.\right.\right.$$

$$\left.\left.\left.\frac{\text{Log}\left[2\left(a\sqrt{1+\text{Cosh}[2x]}+b\sqrt{1+\text{Cosh}[2x]}+\sqrt{a+b}\sqrt{b\,(-1+\text{Cosh}[2x])+a\,(1+\text{Cosh}[2x])}\right)\right]}{\sqrt{a+b}}\right)\text{Sinh}[2x]\right)\Bigg/$$

$$\left(3\,(1+\text{Cosh}[2x])^2\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\right)-\left((1+\text{Cosh}[x])\sqrt{\frac{1+\text{Cosh}[2x]}{(1+\text{Cosh}[x])^2}}\right.$$

$$\left(-\text{Log}\left[\sqrt{a}\,\text{Tanh}\left[\frac{x}{2}\right]^2\right]+\text{Log}\left[2\left(a+2b+a\,\text{Tanh}\left[\frac{x}{2}\right]^2+\sqrt{a}\sqrt{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\right)\right]+\right.$$

$$\left.\text{Log}\left[-2\left(a+a\,\text{Tanh}\left[\frac{x}{2}\right]^2+2b\,\text{Tanh}\left[\frac{x}{2}\right]^2+\sqrt{a}\sqrt{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\right)\right]\right)$$

$$\left(-1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)\sqrt{\frac{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}{\left(-1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}}\Bigg)\Bigg/$$

$$\left.\left(4\sqrt{a}\sqrt{1+\text{Cosh}[2x]}\sqrt{\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\sqrt{4b\,\text{Tanh}\left[\frac{x}{2}\right]^2+a\left(1+\text{Tanh}\left[\frac{x}{2}\right]^2\right)^2}\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Coth}[x]^2\left(a+b\,\text{Tanh}[x]^2\right)^{3/2},\,x,\,13,\,0\right\}$$

$$-b^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{b}\,\text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]+(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b}\,\text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2}}\right]+$$

$$b\,\text{Tanh}[x]\sqrt{a+b\,\text{Tanh}[x]^2}-\text{Coth}[x]\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}$$

$$\frac{1}{\sqrt{2}\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}}$$

$$\text{Sech}[x]^2\left(\frac{a\,(a+2b)\sqrt{\frac{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}{b}}\,\text{EllipticF}\left[\text{ArcSin}\left[\frac{\sqrt{\frac{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}{b}}}{\sqrt{2}}\right],1\right]\text{Sinh}[2x]}{\sqrt{2}}-\right.$$

$$a\left((a-b+(a+b)\,\text{Cosh}[2x])\,\text{Coth}[x]+\right.$$

$$\left.\left.\frac{(a+b)\sqrt{\frac{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}{b}}\,\text{EllipticPi}\left[\frac{b}{a+b},\text{ArcSin}\left[\frac{\sqrt{\frac{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}{b}}}{\sqrt{2}}\right],1\right]\text{Sinh}[2x]}{\sqrt{2}}\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]}{(a+b)^{3/2}}-\frac{1}{(a+b)\sqrt{a+b\,\text{Tanh}[x]^2}}$$

$$\frac{-\sqrt{2}\ \sqrt{a+b}\ +\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \text{Log}\left[\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \right]\text{Sech}[x]}{(a+b)^{3/2}\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a}}\right]}{a^{3/2}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]}{(a+b)^{3/2}}+\frac{b}{a\,(a+b)\sqrt{a+b\,\text{Tanh}[x]^2}}$$

$$\left(\left(-(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a}\ \text{Cosh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ +\right.\right.$$

$$\left.\left.\sqrt{a}\ \left(\sqrt{2}\ b\sqrt{a+b}\ \text{Cosh}[x]+a\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \text{Log}\left[\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \right]\right)\right)$$

$$\text{Sech}[x]\Big)\Big/\left(a^{3/2}\,(a+b)^{3/2}\sqrt{(a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2}\right)$$

Incorrect antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\left(a+b\,\text{Tanh}[x]^2\right)^{5/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a}}\right]}{a^{5/2}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Tanh}[x]^2}}{\sqrt{a+b}}\right]}{(a+b)^{5/2}}+\frac{b}{3\,a\,(a+b)\left(a+b\,\text{Tanh}[x]^2\right)^{3/2}}+\frac{b\,(2\,a+b)}{a^2\,(a+b)^2\sqrt{a+b\,\text{Tanh}[x]^2}}$$

$$\left(\text{Sech}[x]^2\left(\frac{\sqrt{2}\ \sqrt{a}\ b\left(7\,a^2-2\,a\,b-3\,b^2+\left(7\,a^2+10\,a\,b+3\,b^2\right)\text{Cosh}[2x]\right)}{(a+b)^2}-\frac{1}{(a+b)^{5/2}}3\,(a-b+(a+b)\,\text{Cosh}[2x])^{3/2}\right.\right.$$

$$\left.\left.\left((a+b)^{5/2}\,\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a}\ \text{Cosh}[x]}{\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}}\right]-a^{5/2}\,\text{Log}\left[\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]+\sqrt{a-b+(a+b)\,\text{Cosh}[2x]}\ \right]\right)\text{Sech}[x]\right)\right)\Big/$$

$$\left(3\,a^{5/2}\left((a-b+(a+b)\,\text{Cosh}[2x])\,\text{Sech}[x]^2\right)^{3/2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^3}{\sqrt{a+b\,\text{Coth}[x]^2}},\ x,\ 6,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right]}{\sqrt{a+b}}-\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{b}$$

$$\frac{1}{2}\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}\left(-\frac{\sqrt{2}}{b}+\frac{2\,\text{ArcTanh}\left[\frac{\sqrt{2}\,\sqrt{a+b}\,\text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\text{Sinh}[x]}{\sqrt{a+b}\,\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{\sqrt{a+b\,\text{Coth}[x]^2}},\ x,\ 5,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{b}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right]}{\sqrt{b}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\,\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right]}{\sqrt{a+b}}$$

$$\left(\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\,\text{Csch}[x]\left(-\sqrt{a+b}\,\text{ArcTanh}\left[\frac{\sqrt{2}\,\sqrt{b}\,\text{Cosh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]+\sqrt{b}\,\text{Log}\left[\sqrt{2}\,\sqrt{a+b}\,\text{Cosh}[x]+\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\right]\right)\right)\Big/$$
$$\left(\sqrt{b}\,\sqrt{a+b}\,\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right]}{\sqrt{a+b}}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{2}\,\sqrt{a+b}\,\text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\,\text{Csch}[x]}{\sqrt{a+b}\,\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}},\ x,\ 7,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a}}\right]}{\sqrt{a}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right]}{\sqrt{a+b}}$$

$$\frac{\left(-\sqrt{a+b}\,\text{ArcTan}\left[\frac{\sqrt{2}\,\sqrt{-a}\,\text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]+\sqrt{-a}\,\text{ArcTanh}\left[\frac{\sqrt{2}\,\sqrt{a+b}\,\text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\right)\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\,\text{Csch}[x]}{\sqrt{-a}\,\sqrt{a+b}\,\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]^2}{\sqrt{a+b\,\text{Coth}[x]^2}},\ x,\ 5,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\ \text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right]}{\sqrt{a+b}} - \frac{\sqrt{a+b\,\text{Coth}[x]^2}\ \text{Tanh}[x]}{a}$$

$$\left(\left(\sqrt{2}\ a\,\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\text{Cosh}[x] - \sqrt{a+b}\ \sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\right)\right.$$

$$\left.\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}\ \text{Tanh}[x]\right) \Big/ \left(\sqrt{2}\ a\sqrt{a+b}\ \sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Coth}[x]\ \sqrt{a+b\,\text{Coth}[x]^2},\ x,\ 4,\ 0\right\}$$

$$\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right] - \sqrt{a+b\,\text{Coth}[x]^2}$$

$$-\frac{\text{Csch}[x]^2\left(\sqrt{2}\ (-a+b+(a+b)\,\text{Cosh}[2x]) - 2\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\ \text{Sinh}[x]\right)}{2\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Coth}[x]^2}\ \text{Tanh}[x],\ x,\ 7,\ 0\right\}$$

$$-\sqrt{a}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a}}\right] + \sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right]$$

$$\frac{\left(\sqrt{-a}\ \text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{-a}\ \text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]} + \sqrt{b}\ \sqrt{a+b}\ \text{ArcSinh}\left[\frac{\sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{b}}\right]\sqrt{\frac{-a+b+(a+b)\,\text{Cosh}[2x]}{b}}\right)\text{Csch}[x]}{\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Coth}[x]\ \left(a+b\,\text{Coth}[x]^2\right)^{3/2},\ x,\ 6,\ 0\right\}$$

$$(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right] - (a+b)\sqrt{a+b\,\text{Coth}[x]^2} - \frac{1}{3}\left(a+b\,\text{Coth}[x]^2\right)^{3/2}$$

$$\frac{(a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\ \text{Csch}[x]}{\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}} -$$

$$\frac{\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}\ \left(4\,(a+b)+b\,\text{Csch}[x]^2\right)}{3\sqrt{2}}$$

Incorrect antiderivative:

$$\left\{\left(a+b\,\text{Coth}[x]^2\right)^{3/2}\text{Tanh}[x],\ x,\ 8,\ 0\right\}$$

$$-a^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a}}\right] + (a+b)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right] - b\sqrt{a+b\,\text{Coth}[x]^2}$$

$$-b\sqrt{\frac{-a+b+a\cosh[2x]+b\cosh[2x]}{-1+\cosh[2x]}}+\frac{1}{2}\left(-\left(\left(i\left(-3a^2+2ab+b^2\right)(1+\cosh[x])\sqrt{\frac{-1+\cosh[2x]}{(1+\cosh[x])^2}}\right.\right.\right.$$

$$\sqrt{\frac{-a+b+(a+b)\cosh[2x]}{-1+\cosh[2x]}}\left(\text{EllipticF}\left[i\,\text{ArcSinh}\left[\sqrt{\frac{b}{2a+b+2\sqrt{a(a+b)}}}\,\tanh\left[\frac{x}{2}\right]\right],\frac{2a+b+2\sqrt{a(a+b)}}{2a+b-2\sqrt{a(a+b)}}\right]-\right.$$

$$\left.2\,\text{EllipticPi}\left[\frac{2a+b+2\sqrt{a(a+b)}}{b},i\,\text{ArcSinh}\left[\sqrt{\frac{b}{2a+b+2\sqrt{a(a+b)}}}\,\tanh\left[\frac{x}{2}\right]\right],\frac{2a+b+2\sqrt{a(a+b)}}{2a+b-2\sqrt{a(a+b)}}\right]\right)$$

$$\tanh\left[\frac{x}{2}\right]\sqrt{\frac{2a+b+2\sqrt{a(a+b)}+b\tanh\left[\frac{x}{2}\right]^2}{2a+b+2\sqrt{a(a+b)}}}\sqrt{1+\frac{b\tanh\left[\frac{x}{2}\right]^2}{2a+b-2\sqrt{a(a+b)}}}\Bigg)\Bigg/$$

$$\left(\sqrt{\frac{b}{2a+b+2\sqrt{a(a+b)}}}\sqrt{-a+b+(a+b)\cosh[2x]}\sqrt{\tanh\left[\frac{x}{2}\right]^2}\left(-1+\tanh\left[\frac{x}{2}\right]^2\right)\sqrt{\frac{4a\tanh\left[\frac{x}{2}\right]^2+b\left(1+\tanh\left[\frac{x}{2}\right]^2\right)^2}{\left(-1+\tanh\left[\frac{x}{2}\right]^2\right)^2}}\right)+$$

$$\frac{1}{\sqrt{-a+b+(a+b)\cosh[2x]}}3\left(a^2+2ab+b^2\right)\sqrt{-1+\cosh[2x]}\sqrt{\frac{-a+b+(a+b)\cosh[2x]}{-1+\cosh[2x]}}$$

$$\left(-\left(\left(i(1+\cosh[x])\sqrt{\frac{-1+\cosh[2x]}{(1+\cosh[x])^2}}\left(\text{EllipticF}\left[i\,\text{ArcSinh}\left[\sqrt{\frac{b}{2a+b+2\sqrt{a(a+b)}}}\,\tanh\left[\frac{x}{2}\right]\right],\frac{2a+b+2\sqrt{a(a+b)}}{2a+b-2\sqrt{a(a+b)}}\right]-\right.\right.\right.\right.$$

$$\left.\left.2\,\text{EllipticPi}\left[\frac{2a+b+2\sqrt{a(a+b)}}{b},i\,\text{ArcSinh}\left[\sqrt{\frac{b}{2a+b+2\sqrt{a(a+b)}}}\,\tanh\left[\frac{x}{2}\right]\right],\frac{2a+b+2\sqrt{a(a+b)}}{2a+b-2\sqrt{a(a+b)}}\right]\right)$$

$$\tanh\left[\frac{x}{2}\right]\sqrt{\frac{2a+b+2\sqrt{a(a+b)}+b\tanh\left[\frac{x}{2}\right]^2}{2a+b+2\sqrt{a(a+b)}}}\sqrt{1+\frac{b\tanh\left[\frac{x}{2}\right]^2}{2a+b-2\sqrt{a(a+b)}}}\Bigg)\Bigg/$$

$$\left(\sqrt{\frac{b}{2a+b+2\sqrt{a(a+b)}}}\sqrt{-1+\cosh[2x]}\sqrt{\tanh\left[\frac{x}{2}\right]^2}\left(-1+\tanh\left[\frac{x}{2}\right]^2\right)\sqrt{\frac{4a\tanh\left[\frac{x}{2}\right]^2+b\left(1+\tanh\left[\frac{x}{2}\right]^2\right)^2}{\left(-1+\tanh\left[\frac{x}{2}\right]^2\right)^2}}\right)+$$

$$\left(4\sqrt{2b+a(-1+\cosh[2x])+b(-1+\cosh[2x])}\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{a}\sqrt{-1+\cosh[2x]}}{\sqrt{a(-1+\cosh[2x])+b(1+\cosh[2x])}}\right]}{\sqrt{a}}+\right.\right.$$

$$\left.\left.\frac{\text{Log}\left[2\left(a\sqrt{-1+\cosh[2x]}+b\sqrt{-1+\cosh[2x]}+\sqrt{a+b}\sqrt{a(-1+\cosh[2x])+b(1+\cosh[2x])}\right)\right]}{\sqrt{a+b}}\right)\right.$$

$$\left.\sinh[x]^2\sinh[2x]\tanh[x]\right)\Big/\left(3(-1+\cosh[2x])^2\sqrt{-a+b+(a+b)\cosh[2x]}\right)\Bigg)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]^2}{\left(a+b\,\text{Coth}[x]^2\right)^{3/2}},\ x,\ 7,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b}\ \text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^2}}\right]}{(a+b)^{3/2}}-\frac{\text{Coth}[x]}{(a+b)\sqrt{a+b\,\text{Coth}[x]^2}}$$

$$\left(\left(-2\sqrt{a+b}\ \text{Cosh}[x]\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}+\sqrt{2}\ \text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Cosh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right](-a+b+(a+b)\,\text{Cosh}[2x])\right)\right.$$
$$\left.\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}\ \text{Sinh}[x]\right)\Big/\left(\sqrt{2}\ (a+b)^{3/2}\,(-a+b+(a+b)\,\text{Cosh}[2x])^{3/2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\left(a+b\,\text{Coth}[x]^2\right)^{3/2}},\ x,\ 4,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right]}{(a+b)^{3/2}}-\frac{1}{(a+b)\sqrt{a+b\,\text{Coth}[x]^2}}$$

$$\frac{-\sqrt{2}\ \sqrt{a+b}+\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\ \text{Csch}[x]}{(a+b)^{3/2}\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\left(a+b\,\text{Coth}[x]^2\right)^{3/2}},\ x,\ 8,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a}}\right]}{a^{3/2}}+\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^2}}{\sqrt{a+b}}\right]}{(a+b)^{3/2}}+\frac{b}{a\,(a+b)\sqrt{a+b\,\text{Coth}[x]^2}}$$

$$\frac{\sqrt{2}\ b}{a\,(a+b)}+\frac{\left((a+b)^{3/2}\,\text{ArcTan}\left[\frac{\sqrt{2}\ \sqrt{-a}\ \text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]+(-a)^{3/2}\,\text{ArcTanh}\left[\frac{\sqrt{2}\ \sqrt{a+b}\ \text{Sinh}[x]}{\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}}\right]\right)\sqrt{-a+b+(a+b)\,\text{Cosh}[2x]}\ \text{Csch}[x]}{(-a)^{3/2}\,(a+b)^{3/2}}}{\sqrt{(-a+b+(a+b)\,\text{Cosh}[2x])\,\text{Csch}[x]^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Sinh}[x]}},\ x,\ 2,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Sinh}[x]}}{\sqrt{a}}\right]}{\sqrt{a}}$$

$$-\frac{2\sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \sqrt{\text{Csch}[x]}}{\sqrt{b}}\right]\sqrt{1+\frac{a\,\text{Csch}[x]}{b}}}{\sqrt{a}\ \sqrt{\text{Csch}[x]}\ \sqrt{a+b\,\text{Sinh}[x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Sinh}[x]^3}},\ x,\ 2,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Sinh}[x]^3}}{\sqrt{a}}\right]}{3\sqrt{a}}$$

$$-\frac{2\sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \text{Csch}[x]^{3/2}}{\sqrt{b}}\right]\sqrt{1+\frac{a\,\text{Csch}[x]^3}{b}}}{3\sqrt{a}\ \text{Csch}[x]^{3/2}\sqrt{a+b\,\text{Sinh}[x]^3}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Sinh}[x]^4}},\ x,\ 2,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Sinh}[x]^4}}{\sqrt{a}}\right]}{2\sqrt{a}}$$

$$-\frac{\sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \text{Csch}[x]^2}{\sqrt{b}}\right]\sqrt{1+\frac{a\,\text{Csch}[x]^4}{b}}\ \text{Sinh}[x]^2}{2\sqrt{a}\ \sqrt{a+b\,\text{Sinh}[x]^4}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Coth}[x]\sqrt{a+b\,\text{Sinh}[x]},\ x,\ 3,\ 0\right\}$$

$$-2\sqrt{a}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Sinh}[x]}}{\sqrt{a}}\right]+2\sqrt{a+b\,\text{Sinh}[x]}$$

$$\frac{2\left(b+a\,\text{Csch}[x]-\sqrt{a}\ \sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \sqrt{\text{Csch}[x]}}{\sqrt{b}}\right]\sqrt{\text{Csch}[x]}\ \sqrt{1+\frac{a\,\text{Csch}[x]}{b}}\right)\sqrt{a+b\,\text{Sinh}[x]}}{b+a\,\text{Csch}[x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Cosh}[x]}},\ x,\ 2,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Cosh}[x]}}{\sqrt{a}}\right]}{\sqrt{a}}$$

$$-\frac{2\sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \sqrt{\text{Sech}[x]}}{\sqrt{b}}\right]\sqrt{1+\frac{a\,\text{Sech}[x]}{b}}}{\sqrt{a}\ \sqrt{a+b\,\text{Cosh}[x]}\ \sqrt{\text{Sech}[x]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Cosh}[x]^3}},\ x,\ 2,\ 0\right\}$$

$$-\frac{2\,\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Cosh}[x]^3}}{\sqrt{a}}\right]}{3\sqrt{a}}$$

$$-\frac{2\sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \text{Sech}[x]^{3/2}}{\sqrt{b}}\right]\sqrt{1+\frac{a\,\text{Sech}[x]^3}{b}}}{3\sqrt{a}\ \sqrt{a+b\,\text{Cosh}[x]^3}\ \text{Sech}[x]^{3/2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Cosh}[x]^4}},\ x,\ 2,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Cosh}[x]^4}}{\sqrt{a}}\right]}{2\sqrt{a}}$$

$$-\frac{\sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \text{Sech}[x]^2}{\sqrt{b}}\right]\text{Cosh}[x]^2\sqrt{1+\frac{a\,\text{Sech}[x]^4}{b}}}{2\sqrt{a}\ \sqrt{a+b\,\text{Cosh}[x]^4}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Cosh}[x]}\ \text{Tanh}[x],\ x,\ 3,\ 0\right\}$$

$$-2\sqrt{a}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Cosh}[x]}}{\sqrt{a}}\right]+2\sqrt{a+b\,\text{Cosh}[x]}$$

$$\frac{2\sqrt{a+b\,\text{Cosh}[x]}\left(b+a\,\text{Sech}[x]-\sqrt{a}\ \sqrt{b}\ \text{ArcSinh}\left[\frac{\sqrt{a}\ \sqrt{\text{Sech}[x]}}{\sqrt{b}}\right]\sqrt{\text{Sech}[x]}\ \sqrt{1+\frac{a\,\text{Sech}[x]}{b}}\right)}{b+a\,\text{Sech}[x]}$$

Unable to integrate:

$$\left\{\text{Tanh}[x]\sqrt{a+b\,\text{Tanh}[x]^4},\ x,\ 8,\ 0\right\}$$

$$-\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{b}\ \text{Sech}[x]^2-\sqrt{a+b\,\text{Tanh}[x]^4}}{\sqrt{a+b}}\right]-\frac{1}{2}\sqrt{b}\ \text{Log}\left[\sqrt{b}\ \text{Tanh}[x]^2+\sqrt{a+b\,\text{Tanh}[x]^4}\right]+$$

$$\frac{1}{4}\left(-\sqrt{b}\ \text{Tanh}[x]^2-\sqrt{a+b\,\text{Tanh}[x]^4}\right)-\frac{a}{4\left(\sqrt{b}\ \text{Tanh}[x]^2+\sqrt{a+b\,\text{Tanh}[x]^4}\right)}$$

$$\int\text{Tanh}[x]\sqrt{a+b\,\text{Tanh}[x]^4}\ \text{d}x$$

Unable to integrate:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^4}},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a+b\,\text{Tanh}[x]^2}{\sqrt{a+b}\,\sqrt{a+b\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a+b}}$$

$$\int \frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^4}}\,dx$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Tanh}[x]}{\left(a+b\,\text{Tanh}[x]^4\right)^{3/2}},\ x,\ 11,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{\sqrt{b}\ \text{Sech}[x]^2-\sqrt{a+b\,\text{Tanh}[x]^4}}{\sqrt{a+b}}\right]}{(a+b)^{3/2}} -$$

$$\frac{\sqrt{b}}{(a+b)\left(a+\left(\sqrt{b}\ \text{Tanh}[x]^2+\sqrt{a+b\,\text{Tanh}[x]^4}\right)^2\right)} - \frac{\sqrt{b}\ \text{Tanh}[x]^2+\sqrt{a+b\,\text{Tanh}[x]^4}}{(a+b)\left(a+\left(\sqrt{b}\ \text{Tanh}[x]^2+\sqrt{a+b\,\text{Tanh}[x]^4}\right)^2\right)}$$

???

Unable to integrate:

$$\left\{\text{Coth}[x]\sqrt{a+b\,\text{Coth}[x]^4},\ x,\ 8,\ 0\right\}$$

$$\sqrt{a+b}\ \text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^4}+\sqrt{b}\ \text{Csch}[x]^2}{\sqrt{a+b}}\right]+\frac{1}{4}\left(-\sqrt{b}\ \text{Coth}[x]^2-\sqrt{a+b\,\text{Coth}[x]^4}\right)-$$

$$\frac{a}{4\left(\sqrt{b}\ \text{Coth}[x]^2+\sqrt{a+b\,\text{Coth}[x]^4}\right)}-\frac{1}{2}\sqrt{b}\ \text{Log}\left[\sqrt{b}\ \text{Coth}[x]^2+\sqrt{a+b\,\text{Coth}[x]^4}\right]$$

$$\int \text{Coth}[x]\sqrt{a+b\,\text{Coth}[x]^4}\,dx$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Coth}[x]^4}},\ x,\ 3,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{a+b\,\text{Coth}[x]^2}{\sqrt{a+b}\,\sqrt{a+b\,\text{Coth}[x]^4}}\right]}{2\sqrt{a+b}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Coth}[x]}{\left(a+b\,\text{Coth}[x]^4\right)^{3/2}},\ x,\ 11,\ 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{\sqrt{a+b\,\text{Coth}[x]^4}+\sqrt{b}\,\text{Csch}[x]^2}{\sqrt{a+b}}\right]}{(a+b)^{3/2}} -$$

$$\frac{\sqrt{b}}{(a+b)\left(a+\left(\sqrt{b}\,\text{Coth}[x]^2+\sqrt{a+b\,\text{Coth}[x]^4}\right)^2\right)} - \frac{\sqrt{b}\,\text{Coth}[x]^2+\sqrt{a+b\,\text{Coth}[x]^4}}{(a+b)\left(a+\left(\sqrt{b}\,\text{Coth}[x]^2+\sqrt{a+b\,\text{Coth}[x]^4}\right)^2\right)}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Sinh}[x]}{i-\text{Sinh}[x]},\ x,\ 2,\ 0\right\}$$

$$-B\,x+\frac{(A+i\,B)\,\text{Cosh}[x]}{1+i\,\text{Sinh}[x]}$$

$$\frac{\left(i\,\text{Cosh}\left[\frac{x}{2}\right]-\text{Sinh}\left[\frac{x}{2}\right]\right)\left(B\,x\,\text{Cosh}\left[\frac{x}{2}\right]+i\,(2\,A+B\,(2\,i+x))\,\text{Sinh}\left[\frac{x}{2}\right]\right)}{-i+\text{Sinh}[x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cosh}[x]}{i-\text{Sinh}[x]},\ x,\ 5,\ 0\right\}$$

$$-B\,\text{Log}[i-\text{Sinh}[x]]+\frac{A\,\text{Cosh}[x]}{1+i\,\text{Sinh}[x]}$$

$$-\frac{1}{-i+\text{Sinh}[x]}\left(\text{Cosh}\left[\frac{x}{2}\right]+i\,\text{Sinh}\left[\frac{x}{2}\right]\right)$$
$$\left(B\,\text{Cosh}\left[\frac{x}{2}\right]\left(2\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]-i\,\text{Log}[\text{Cosh}[x]]\right)+\left(2\,A+2\,i\,B\,\text{ArcTan}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]+B\,\text{Log}[\text{Cosh}[x]]\right)\text{Sinh}\left[\frac{x}{2}\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^5,\ x,\ 3,\ 0\right\}$$

$$\left(a^2-b^2\right)^2(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])+\frac{2}{3}\left(a^2-b^2\right)(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])^3+\frac{1}{5}(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])^5$$

$$\frac{1}{240}\left(150\,b\left(a^2-b^2\right)^2\text{Cosh}[x]-25\,b\left(-3\,a^4+2\,a^2\,b^2+b^4\right)\text{Cosh}[3\,x]+3\,b\left(5\,a^4+10\,a^2\,b^2+b^4\right)\text{Cosh}[5\,x]+\right.$$
$$\left.150\,a\left(a^2-b^2\right)^2\text{Sinh}[x]+25\,a\left(a^4+2\,a^2\,b^2-3\,b^4\right)\text{Sinh}[3\,x]+3\,a\left(a^4+10\,a^2\,b^2+5\,b^4\right)\text{Sinh}[5\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]},\ x,\ 1,\ 0\right\}$$

$$\frac{2\,i\,\text{EllipticE}\left[\frac{1}{4}(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,b,\,a])),\,2\right]\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}{\sqrt{-\frac{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{\sqrt{a^2-b^2}}}}$$

$$\left(b\left(-a^2+b^2\right)\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2\right]\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]+\sqrt{-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2}\left(2a^3\sqrt{1-\frac{b^2}{a^2}}\,\text{Cosh}[x]-2a\left(a^2-b^2\right)\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]+2a^2b\sqrt{1-\frac{b^2}{a^2}}\,\text{Sinh}[x]+a^2b\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]-b^3\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]\right)\right)\Big/\left(ab\sqrt{1-\frac{b^2}{a^2}}\,\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}\,\sqrt{-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{3/2},x,2,0\right\}$$

$$\frac{2}{3}(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}+\frac{2i\left(a^2-b^2\right)\text{EllipticF}\left[\frac{1}{4}(\pi-2i(x+i\,\text{ArcTan}[i\,b,a])),2\right]\sqrt{-\frac{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{\sqrt{a^2-b^2}}}}{3\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}$$

$$\frac{1}{3\sqrt{1-\frac{a^2}{b^2}}\,b}2\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}\left(\left(a^2-b^2\right)\sqrt{\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]^2}\,\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]^2\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]+\sqrt{1-\frac{a^2}{b^2}}\,b\,(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{5/2},x,2,0\right\}$$

$$\frac{2}{5}(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{3/2}+\frac{6i\left(a^2-b^2\right)\text{EllipticE}\left[\frac{1}{4}(\pi-2i(x+i\,\text{ArcTan}[i\,b,a])),2\right]\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}{5\sqrt{-\frac{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{\sqrt{a^2-b^2}}}}$$

$$\frac{1}{5\,b\,\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}$$

$$\left((a\,\text{Cosh}[x]+b\,\text{Sinh}[x])\left(6\,a\left(a^2-b^2\right)+2\,a\,b^2\,\text{Cosh}[2\,x]+b\left(a^2+b^2\right)\text{Sinh}[2\,x]\right)-\frac{1}{a\sqrt{1-\frac{b^2}{a^2}}\,\sqrt{-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2}}\right.$$

$$\left.3\,(a-b)^2\,(a+b)^2\left(b\,\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2\right]\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]+\right.\right.$$

$$\left.\left.\sqrt{-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2}\left(2\,a\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]-b\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]\right)\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}},\,x,\,1,\,0\right\}$$

$$\frac{2\,i\,\text{EllipticF}\left[\frac{1}{4}\,(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,b,\,a])),\,2\right]\sqrt{-\frac{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{\sqrt{a^2-b^2}}}}{\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}$$

$$\frac{1}{\sqrt{1-\frac{a^2}{b^2}}\,b}2\sqrt{\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]^2}$$

$$\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\left\{\frac{5}{4}\right\},-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]^2\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{3/2}},\,x,\,2,\,0\right\}$$

$$\frac{2\,(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])}{\left(a^2-b^2\right)\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}-\frac{2\,i\,\text{EllipticE}\left[\frac{1}{4}\,(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,b,\,a])),\,2\right]\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}{\left(a^2-b^2\right)\sqrt{-\frac{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{\sqrt{a^2-b^2}}}}$$

$$\left(b\,\text{HypergeometricPFQ}\left[\left\{-\frac{1}{2},\,-\frac{1}{4}\right\},\left\{\frac{3}{4}\right\},\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2\right]\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]-\right.$$

$$\left.\sqrt{-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2}\left(2\,a\sqrt{1-\frac{b^2}{a^2}}\,\text{Cosh}[x]-2\,a\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]+b\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]\right)\right)\Big/$$

$$\left(a\,b\sqrt{1-\frac{b^2}{a^2}}\,\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}\,\sqrt{-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{a}\right]\right]^2}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{5/2}},\ x,\ 2,\ 0\right\}$$

$$\frac{2\,(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])}{3\,\left(a^2-b^2\right)\,(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{3/2}}+\frac{2\,i\,\text{EllipticF}\left[\frac{1}{4}\,(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,b,\,a])),\,2\right]\sqrt{-\frac{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{\sqrt{a^2-b^2}}}}{3\,\left(a^2-b^2\right)\sqrt{a\,\text{Cosh}[x]+b\,\text{Sinh}[x]}}$$

$$\frac{1}{3\,\left(a^2-b^2\right)^2\,(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^{3/2}}\left(2\,\left(a^2-b^2\right)\,(b\,\text{Cosh}[x]+a\,\text{Sinh}[x])-2\sqrt{1-\frac{a^2}{b^2}}\;b\sqrt{\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]^2}\right.$$
$$\left.\text{HypergeometricPFQ}\left[\left\{\frac{1}{4},\,\frac{1}{2}\right\},\,\left\{\frac{5}{4}\right\},\,-\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]^2\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{a}{b}\right]\right]\,(a\,\text{Cosh}[x]+b\,\text{Sinh}[x])^2\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{a\,\text{Coth}[x]+b\,\text{Csch}[x],\ x,\ 3,\ 0\}$$

$$-b\,\text{ArcCoth}[\text{Cosh}[x]]+a\,\text{Log}[\text{Sinh}[x]]$$

$$-b\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+b\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]+a\,\text{Log}[\text{Sinh}[x]]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Coth}[x]+\text{Csch}[x],\ x,\ 3,\ 0\}$$

$$2\,\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]$$

$$-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]+\text{Log}[\text{Sinh}[x]]$$

Valid but unnecessarily complicated antiderivative:

$$\{-\text{Coth}[x]+\text{Csch}[x],\ x,\ 3,\ 0\}$$

$$-2\,\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]$$

$$-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]-\text{Log}[\text{Sinh}[x]]$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Csch}[x]+\text{Sinh}[x],\ x,\ 3,\ 0\}$$

$$-\text{ArcCoth}[\text{Cosh}[x]]+\text{Cosh}[x]$$

$$\text{Cosh}[x]-\text{Log}\left[2\,\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[2\,\text{Sinh}\left[\frac{x}{2}\right]\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{\text{Csch}[x]+\text{Sinh}[x]},\ x,\ 3,\ 0\right\}$$

$$2\sqrt{\text{Cosh}[x]\,\text{Coth}[x]}\;\text{Tanh}[x]$$

$$\frac{2\sqrt{\text{Cosh}[x]\,\text{Coth}[x]}\;\left(-1+\left(-\text{Sinh}[x]^2\right)^{1/4}\right)\text{Tanh}[x]}{\left(-\text{Sinh}[x]^2\right)^{1/4}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\text{Sinh}[x]-\text{Tanh}[x]},\ x,\ 3,\ 0\right\}$$

$$-\frac{1}{4}\text{Coth}\left[\frac{x}{2}\right]^2+\frac{1}{2}\text{Log}\left[\text{Tanh}\left[\frac{x}{2}\right]\right]$$

$$-\frac{1}{4}\text{Csch}\left[\frac{x}{2}\right]^2\left(1-\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Cosh}[x]\left(\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]-\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)+\text{Log}\left[\text{Sinh}\left[\frac{x}{2}\right]\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\left(\text{Coth}[x]^2+\text{Csch}[x]^2\right)^2},\ x,\ 8,\ 0\right\}$$

$$x-\frac{\text{ArcTanh}\left[\sqrt{2}\ \text{Coth}[x]\right]}{\sqrt{2}}+\frac{\text{Coth}[x]}{1-2\,\text{Coth}[x]^2}$$

$$\frac{(3+\text{Cosh}[2x])\,\text{Csch}[x]^4\left(6x+2x\,\text{Cosh}[2x]-\sqrt{2}\ \text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{2}}\right](3+\text{Cosh}[2x])-2\,\text{Sinh}[2x]\right)}{8\left(\text{Coth}[x]^2+\text{Csch}[x]^2\right)^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^4},\ x,\ 4,\ 0\right\}$$

$$-\frac{c\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{3\left(a^2-b^2+c^2\right)(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^3}-$$

$$\frac{6a\left(2a^2+3b^2-3c^2\right)\text{ArcTanh}\left[\frac{c-(a-b)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^2-b^2+c^2}}\right]+\frac{\sqrt{a^2-b^2+c^2}\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\left(5a\left(a^2-b^2+c^2\right)+\left(11a^2+4\left(b^2-c^2\right)\right)(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])\right)}{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^2}}{6\left(a^2-b^2+c^2\right)^{7/2}}$$

$$-\frac{a\left(2a^2+3b^2-3c^2\right)\text{ArcTan}\left[\frac{c+(-a+b)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{-a^2+b^2-c^2}}\right]}{\left(-a^2+b^2-c^2\right)^{7/2}}-$$

$$\frac{1}{24b\left(a^2-b^2+c^2\right)^3(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^3}\left(-44a^5c-82a^3b^2c-24ab^4c+82a^3c^3+48ab^2c^3-24ac^5-\right.$$
$$30a^2bc\left(2a^2+3b^2-3c^2\right)\text{Cosh}[x]-6ac\left(a^2\left(-7b^2+11c^2\right)+2\left(b^4+b^2c^2-2c^4\right)\right)\text{Cosh}[2x]+22a^2b^3c\,\text{Cosh}[3x]+$$
$$8b^5c\,\text{Cosh}[3x]-22a^2bc^3\,\text{Cosh}[3x]-16b^3c^3\,\text{Cosh}[3x]+8bc^5\,\text{Cosh}[3x]+72a^4b^2\,\text{Sinh}[x]-9a^2b^4\,\text{Sinh}[x]+$$
$$12b^6\,\text{Sinh}[x]-132a^4c^2\,\text{Sinh}[x]-72a^2b^2c^2\,\text{Sinh}[x]-36b^4c^2\,\text{Sinh}[x]+81a^2c^4\,\text{Sinh}[x]+36b^2c^4\,\text{Sinh}[x]-$$
$$12c^6\,\text{Sinh}[x]+54a^3b^3\,\text{Sinh}[2x]+6ab^5\,\text{Sinh}[2x]-78a^3bc^2\,\text{Sinh}[2x]-48ab^3c^2\,\text{Sinh}[2x]+42abc^4\,\text{Sinh}[2x]+$$
$$\left.11a^2b^4\,\text{Sinh}[3x]+4b^6\,\text{Sinh}[3x]-4b^4c^2\,\text{Sinh}[3x]-11a^2c^4\,\text{Sinh}[3x]-4b^2c^4\,\text{Sinh}[3x]+4c^6\,\text{Sinh}[3x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x]},\ x,\ 1,\ 0\right\}$$

$$\frac{\text{Log}\left[a+c\,\text{Tanh}\left[\frac{x}{2}\right]\right]}{c}$$

$$\frac{-\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[-a\,\text{Cosh}\left[\frac{x}{2}\right]-c\,\text{Sinh}\left[\frac{x}{2}\right]\right]}{c}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x])^2},\ x,\ 2,\ 0\right\}$$

$$\frac{a\,\text{Log}\left[a+c\,\text{Tanh}\left[\frac{x}{2}\right]\right]}{c^3}-\frac{c\,\text{Cosh}[x]+a\,\text{Sinh}[x]}{c^2\,(a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x])}$$

$$\frac{2\,a\left(-\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+\text{Log}\left[-a\,\text{Cosh}\left[\frac{x}{2}\right]-c\,\text{Sinh}\left[\frac{x}{2}\right]\right]\right)+\frac{c\left(-a^2+c^2\right)\text{Sinh}\left[\frac{x}{2}\right]}{a\left(a\,\text{Cosh}\left[\frac{x}{2}\right]+c\,\text{Sinh}\left[\frac{x}{2}\right]\right)}-c\,\text{Tanh}\left[\frac{x}{2}\right]}{2\,c^3}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x])^4},\ x,\ 4,\ 0\right\}$$

$$-\frac{c\,\text{Cosh}[x]+a\,\text{Sinh}[x]}{3\,c^2\,(a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x])^3}+\frac{3\,a\left(5\,a^2-3\,c^2\right)\text{Log}\left[a+c\,\text{Tanh}\left[\frac{x}{2}\right]\right]-\frac{c\,(c\,\text{Cosh}[x]+a\,\text{Sinh}[x])\left(5\,a\,c^2+\left(15\,a^2-4\,c^2\right)(a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x])\right)}{(a+a\,\text{Cosh}[x]+c\,\text{Sinh}[x])^2}}{6\,c^7}$$

$$\frac{1}{384\,c^7}\left(192\left(-5\,a^3+3\,a\,c^2\right)\text{Log}\left[\text{Cosh}\left[\frac{x}{2}\right]\right]+192\,a\left(5\,a^2-3\,c^2\right)\text{Log}\left[a\,\text{Cosh}\left[\frac{x}{2}\right]+c\,\text{Sinh}\left[\frac{x}{2}\right]\right]-\right.$$

$$\frac{1}{a\left(a\,\text{Cosh}\left[\frac{x}{2}\right]+c\,\text{Sinh}\left[\frac{x}{2}\right]\right)^3}c\,\text{Sech}\left[\frac{x}{2}\right]^3\left(-150\,a^5\,c+130\,a^3\,c^3-24\,a\,c^5+\left(-75\,a^5\,c+75\,a^3\,c^3+12\,a\,c^5\right)\text{Cosh}[x]+\right.$$

$$6\,a\,c\left(25\,a^4-15\,a^2\,c^2+4\,c^4\right)\text{Cosh}[2\,x]+75\,a^5\,c\,\text{Cosh}[3\,x]-35\,a^3\,c^3\,\text{Cosh}[3\,x]+4\,a\,c^5\,\text{Cosh}[3\,x]+$$

$$150\,a^6\,\text{Sinh}[x]-255\,a^4\,c^2\,\text{Sinh}[x]+129\,a^2\,c^4\,\text{Sinh}[x]-12\,c^6\,\text{Sinh}[x]+120\,a^6\,\text{Sinh}[2\,x]-72\,a^4\,c^2\,\text{Sinh}[2\,x]+$$

$$\left.\left.36\,a^2\,c^4\,\text{Sinh}[2\,x]+30\,a^6\,\text{Sinh}[3\,x]+37\,a^4\,c^2\,\text{Sinh}[3\,x]-27\,a^2\,c^4\,\text{Sinh}[3\,x]+4\,c^6\,\text{Sinh}[3\,x]\right)\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^4},\ x,\ 4,\ 0\right\}$$

$$\frac{c\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{7\sqrt{b^2-c^2}\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^4}+\frac{3\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{35\left(b^2-c^2\right)\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^3}+$$

$$\frac{2\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{35\left(b^2-c^2\right)^{3/2}\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^2}-\frac{2\left(c+\sqrt{b^2-c^2}\,\text{Sinh}[x]\right)}{35\,c\left(b^2-c^2\right)^{3/2}(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}$$

$$\frac{1}{1120\left(-b^2\,c+c^3\right)(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])^7}$$

$$\left(-832\,b^4\,c\sqrt{b^2-c^2}+1664\,b^2\,c^3\sqrt{b^2-c^2}-832\,c^5\sqrt{b^2-c^2}+1190\,b\,c\left(b^2-c^2\right)^2\text{Cosh}[x]+\right.$$

$$448\,c\sqrt{b^2-c^2}\left(-b^4+c^4\right)\text{Cosh}[2\,x]+112\,b^5\,c\,\text{Cosh}[3\,x]+56\,b^3\,c^3\,\text{Cosh}[3\,x]-168\,b\,c^5\,\text{Cosh}[3\,x]-28\,b^5\,c\,\text{Cosh}[5\,x]+$$

$$28\,b\,c^5\,\text{Cosh}[5\,x]+6\,b^5\,c\,\text{Cosh}[7\,x]+20\,b^3\,c^3\,\text{Cosh}[7\,x]+6\,b\,c^5\,\text{Cosh}[7\,x]-35\,b^6\,\text{Sinh}[x]+1295\,b^4\,c^2\,\text{Sinh}[x]-$$

$$2485\,b^2\,c^4\,\text{Sinh}[x]+1225\,c^6\,\text{Sinh}[x]-896\,b^3\,c^2\sqrt{b^2-c^2}\,\text{Sinh}[2\,x]+896\,b\,c^4\sqrt{b^2-c^2}\,\text{Sinh}[2\,x]+$$

$$21\,b^6\,\text{Sinh}[3\,x]+189\,b^4\,c^2\,\text{Sinh}[3\,x]-161\,b^2\,c^4\,\text{Sinh}[3\,x]-49\,c^6\,\text{Sinh}[3\,x]-7\,b^6\,\text{Sinh}[5\,x]-35\,b^4\,c^2\,\text{Sinh}[5\,x]+$$

$$\left.35\,b^2\,c^4\,\text{Sinh}[5\,x]+7\,c^6\,\text{Sinh}[5\,x]+b^6\,\text{Sinh}[7\,x]+15\,b^4\,c^2\,\text{Sinh}[7\,x]+15\,b^2\,c^4\,\text{Sinh}[7\,x]+c^6\,\text{Sinh}[7\,x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^{5/2},\ x,\ 5,\ 0\right\}$$

$$\frac{16}{15}a\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}+\frac{2}{5}(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\,(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^{3/2}+$$

$$\frac{2\,i\left(23a^2+9\left(b^2-c^2\right)\right)\text{EllipticE}\left[\frac{1}{4}(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,c,\,b])),\ \frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}{15\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}-$$

$$\frac{16\,i\,a\left(a^2-b^2+c^2\right)\text{EllipticF}\left[\frac{1}{4}(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,c,\,b])),\ \frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}{15\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

$$\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\left(\frac{2\,b\left(23a^2+9\,b^2-9\,c^2\right)}{15\,c}+\frac{22}{15}a\,c\,\text{Cosh}[x]+\frac{2}{5}b\,c\,\text{Cosh}[2\,x]+\frac{22}{15}a\,b\,\text{Sinh}[x]+\frac{1}{5}\left(b^2+c^2\right)\text{Sinh}[2\,x]\right)+$$

$$\left(2\,a^3\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2},\frac{1}{2},\frac{3}{2},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\ c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\ c}\right)c},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\ c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\ c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\ c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\ c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\ c}\right)c}}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\ c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\ c}\right)c}}\Bigg/\left(\sqrt{1-\frac{b^2}{c^2}}\ c\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\ c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\ c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\ c}}\right)$$

$$\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}+$$

$$\left(34\,a\,b^2\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2},\frac{1}{2},\frac{3}{2},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}}\Bigg/$$

$$\left(15\sqrt{1-\frac{b^2}{c^2}}\,c\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}\right.$$

$$\left.\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}\right)-$$

$$\left(34\,a\,c\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2},\frac{1}{2},\frac{3}{2},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\Bigg/\left(15\sqrt{1-\frac{b^2}{c^2}}\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\right)-$$

$$\frac{1}{15\,c}23\,a^2\,b^2\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\;\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\;\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)-\right.$$

$$\frac{1}{5c}3b^4\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)+$$

$$\frac{23}{15}a^2c\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)+$$

$$\frac{6}{5}b^2c\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\left.\left.\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right)$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)-$$

$$\frac{3}{5}c^3\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\left.\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)\Big/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.\right.$$

$$\left.\left.\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right)\right.$$

$$\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^{3/2},\ x,\ 4,\ 0\right\}$$

$$\frac{2}{3}\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\,\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\;+$$

$$\frac{8\,i\,a\,\text{EllipticE}\left[\frac{1}{4}\,(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,c,\,b])),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}{3\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}-$$

$$\frac{2\,i\,\left(a^2-b^2+c^2\right)\text{EllipticF}\left[\frac{1}{4}\,(\pi-2\,i\,(x+i\,\text{ArcTan}[i\,c,\,b])),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}{3\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

$$\left(\frac{8\,a\,b}{3\,c}+\frac{2}{3}\,c\,\text{Cosh}[x]+\frac{2}{3}\,b\,\text{Sinh}[x]\right)\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\;+$$

$$\left(2\,a^2\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2},\,\frac{1}{2},\,\frac{3}{2},\,-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c},\,-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\,\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\,\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\,\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\,\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\Bigg/\left(\sqrt{1-\frac{b^2}{c^2}}\;c\,\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\right)$$

$$\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}+$$

$$\left(2\,b^2\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2},\frac{1}{2},\frac{3}{2},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}}\Bigg/$$

$$\left(3\sqrt{1-\frac{b^2}{c^2}}\,c\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}\right.$$

$$\left.\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}\right)-$$

$$\left(2\,c\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2},\frac{1}{2},\frac{3}{2},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\Bigg/\left(3\sqrt{1-\frac{b^2}{c^2}}\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\right)-$$

$$\frac{1}{3\,c}4\,a\,b^2\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\;\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\;\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\left.\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right.$$

$$\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)+$$

$$\frac{4}{3}ac\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.$$

$$\left.\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\right.$$

$$\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\,\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\,\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\left.\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\,\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right.$$

$$\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right)\left(-\frac{\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\,,\,x,\,1,\,0\right\}$$

$$\frac{2\,i\,\text{EllipticE}\left[\frac{1}{4}\left(\pi-2\,i\left(x+i\,\text{ArcTan}[i\,c,\,b]\right)\right),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}{\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}$$

$$\frac{2\,b\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}{c}+$$

$$\left(2\,a\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2},\,\frac{1}{2},\,\frac{3}{2},\,-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c},\,-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}\right)c}\right]\text{Sech}\left[\right.\right.$$

$$x + \text{ArcTanh}\left[\frac{b}{c}\right]\sqrt{-1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}$$

$$\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}}\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}}\Bigg/$$

$$\left(\sqrt{1 - \frac{b^2}{c^2}}\,c\sqrt{-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c} + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\,c}}\sqrt{1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c} + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\,c}}\right) -$$

$$\frac{1}{c}b^2\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2}, -\frac{1}{2}, -\frac{1}{2}, \frac{1}{2}, \frac{a + b\sqrt{1 - \frac{c^2}{b^2}}\,\text{Cosh}\left[x + \text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1 - \frac{c^2}{b^2}}\left(1 + \frac{a}{b\sqrt{1 - \frac{c^2}{b^2}}}\right)}, \frac{a + b\sqrt{1 - \frac{c^2}{b^2}}\,\text{Cosh}\left[x + \text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1 - \frac{c^2}{b^2}}\left(-1 + \frac{a}{b\sqrt{1 - \frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\left.\left.\sqrt{-1 + \frac{a}{b\sqrt{1 - \frac{c^2}{b^2}}} - \frac{a + b\sqrt{1 - \frac{c^2}{b^2}}\,\text{Cosh}\left[x + \text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1 - \frac{c^2}{b^2}}}}\sqrt{1 + \frac{a}{b\sqrt{1 - \frac{c^2}{b^2}}} - \frac{a + b\sqrt{1 - \frac{c^2}{b^2}}\,\text{Cosh}\left[x + \text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1 - \frac{c^2}{b^2}}}}\right)$$

$$\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)+$$

$$c\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\left.\left.\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\right.\right.$$

$$\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\,\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\,\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\left.\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\,\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right.$$

$$\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right)-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}},\,x,\,1,\,0\right\}$$

$$\frac{2\,i\,\text{EllipticF}\left[\frac{1}{4}\left(\pi-2\,i\left(x+i\,\text{ArcTan}[i\,c,\,b]\right)\right),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}{\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

$$\frac{1}{\sqrt{1-\frac{b^2}{c^2}}\,c}\,2\,\text{AppellF1}\left[\frac{1}{2},\,\frac{1}{2},\,\frac{1}{2},\,\frac{3}{2},\,\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a+i\sqrt{1-\frac{b^2}{c^2}}\,c},\,\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-i\sqrt{1-\frac{b^2}{c^2}}\,c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]$$

$$\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\,\sqrt{\frac{\left(b^2-c^2\right)\left(1-i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{b^2-i\,a\sqrt{1-\frac{b^2}{c^2}}\,c-c^2}}\,\sqrt{\frac{\left(b^2-c^2\right)\left(1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{b^2+i\,a\sqrt{1-\frac{b^2}{c^2}}\,c-c^2}}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^{3/2}},\,x,\,2,\,0\right\}$$

$$-\frac{2\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{\left(a^2-b^2+c^2\right)\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}+$$

$$\frac{2\,i\,\text{EllipticE}\left[\frac{1}{4}\left(\pi-2\,i\left(x+i\,\text{ArcTan}[i\,c,\,b]\right)\right),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}{\left(a^2-b^2+c^2\right)\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}$$

$$\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\left(-\frac{2\left(b^2-c^2\right)}{b\,c\left(-a^2+b^2-c^2\right)}+\frac{2\left(a\,c-b^2\,\text{Sinh}[x]+c^2\,\text{Sinh}[x]\right)}{b\left(a^2-b^2+c^2\right)\left(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)}\right)+$$

$$\left(2\,a\,\text{AppellF1}\left[\frac{1}{2},\frac{1}{2},\frac{1}{2},\frac{3}{2},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c},-\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}\right]\text{Sech}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+i\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\sqrt{1+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\left(1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}\right)c}}\Bigg/$$

$$\left(\sqrt{1-\frac{b^2}{c^2}}\;c\left(a^2-b^2+c^2\right)\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\;c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\;c}}\right)-$$

$$\frac{1}{c\left(a^2-b^2+c^2\right)}b^2\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\;\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\;\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)+$$

$$\frac{1}{a^2-b^2+c^2}c\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)\right.$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{1}{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^{5/2}},\,x,\,5,\,0\right\}$$

$$-\frac{2\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{3\left(a^2-b^2+c^2\right)(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^{3/2}}-\frac{1}{3\left(a^2-b^2+c^2\right)}2\left(\frac{2\,(-2\,a\,c\,\text{Cosh}[x]-2\,a\,b\,\text{Sinh}[x])}{\left(-a^2+b^2-c^2\right)\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}+\right.$$

$$\frac{4\,i\,a\,\text{EllipticE}\left[\frac{1}{2}\left(\frac{\pi}{2}-i\,(x+i\,\text{ArcTan}[i\,c,\,b])\right),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}{\left(-a^2+b^2-c^2\right)\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}+$$

$$\left.\frac{4\,i\left(-a^2\,b+\frac{1}{2}\,b\left(\frac{3\,a^2}{2}+\frac{b^2}{2}-\frac{c^2}{2}\right)\right)\text{EllipticF}\left[\frac{1}{2}\left(\frac{\pi}{2}-i\,(x+i\,\text{ArcTan}[i\,c,\,b])\right),\,\frac{2}{1-\frac{a}{\sqrt{b^2-c^2}}}\right]\sqrt{\frac{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}{a-\sqrt{b^2-c^2}}}}{b\left(-a^2+b^2-c^2\right)\sqrt{a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}\right)$$

$$\sqrt{a + b\,\text{Cosh}[x] + c\,\text{Sinh}[x]}$$

$$\left(\frac{8\,a\,\left(b^2 - c^2\right)}{3\,b\,c\,\left(a^2 - b^2 + c^2\right)^2} - \frac{2\,\left(-a\,c + b^2\,\text{Sinh}[x] - c^2\,\text{Sinh}[x]\right)}{3\,b\,\left(a^2 - b^2 + c^2\right)\,(a + b\,\text{Cosh}[x] + c\,\text{Sinh}[x])^2} - \frac{2\,\left(-3\,a^2\,c - b^2\,c + c^3 + 4\,a\,b^2\,\text{Sinh}[x] - 4\,a\,c^2\,\text{Sinh}[x]\right)}{3\,b\,\left(-a^2 + b^2 - c^2\right)^2\,(a + b\,\text{Cosh}[x] + c\,\text{Sinh}[x])}\right) +$$

$$\left(2\,a^2\,\text{AppellF1}\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}, \frac{3}{2}, -\frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c}\right)c}, -\frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c}\right)c}\right]\text{Sech}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\sqrt{-1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\right.$$

$$\left.\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c}\right)c}}\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c}\right)c}}\right)\Bigg/$$

$$\left(\sqrt{1 - \frac{b^2}{c^2}}\;c\,\left(a^2 - b^2 + c^2\right)^2\sqrt{-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c} + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\;c}}\right.$$

$$\left.\sqrt{1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c} + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\;c}}\right) +$$

$$\left(2\,b^2\,\text{AppellF1}\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}, \frac{3}{2}, -\frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c}\right)c}, -\frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\;c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\;c}\right)c}\right]\text{Sech}\left[\right.\right.$$

$$x + \text{ArcTanh}\left[\frac{b}{c}\right]\sqrt{-1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}$$

$$\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}}\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}}\Bigg/$$

$$\left(3\sqrt{1 - \frac{b^2}{c^2}}\,c\left(a^2 - b^2 + c^2\right)^2\sqrt{-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c} + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\,c}}\right.$$

$$\left.\sqrt{1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c} + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\,c}}\right) -$$

$$\left(2\,c\,\text{AppellF1}\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}, \frac{3}{2}, -\frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}, -\frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}\right]\text{Sech}\left[\right.\right.$$

$$x + \text{ArcTanh}\left[\frac{b}{c}\right]\sqrt{-1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{1 + i\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}\sqrt{a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]}$$

$$\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(-1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}}\sqrt{1 + \frac{i\left(a + \sqrt{1 - \frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x + \text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1 - \frac{b^2}{c^2}}\left(1 - \frac{i\,a}{\sqrt{1 - \frac{b^2}{c^2}}\,c}\right)c}}\Bigg/$$

$$\left(3\sqrt{1-\frac{b^2}{c^2}}\,\left(a^2-b^2+c^2\right)^2\sqrt{-1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}\right.$$

$$\left.\sqrt{1-\frac{i\,a}{\sqrt{1-\frac{b^2}{c^2}}\,c}+\frac{i\left(a+\sqrt{1-\frac{b^2}{c^2}}\,c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{b}{c}\right]\right]\right)}{\sqrt{1-\frac{b^2}{c^2}}\,c}}\right)-\frac{1}{3\,c\,\left(a^2-b^2+c^2\right)^2}$$

$$4\,a\,b^2\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\left.\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\right.$$

$$\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\,\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\,\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\left.\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\,\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\right)$$

$$\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)+\frac{1}{3\left(a^2-b^2+c^2\right)^2}$$

$$4\,a\,c\left(\left(c\,\text{AppellF1}\left[-\frac{1}{2},-\frac{1}{2},-\frac{1}{2},\frac{1}{2},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)},\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}\right]\right.\right.$$

$$\sqrt{-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}\sqrt{1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}$$

$$\left.\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)\Bigg/\left(b\sqrt{1-\frac{c^2}{b^2}}\sqrt{-1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\right.$$

$$\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(-1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}$$

$$\left.\left.\sqrt{1-\frac{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}\left(1+\frac{a}{b\sqrt{1-\frac{c^2}{b^2}}}\right)}}\left(-\frac{-\frac{2b\left(a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]\right)}{b^2-c^2}+\frac{c\,\text{Sinh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}{b\sqrt{1-\frac{c^2}{b^2}}}}{\sqrt{a+b\sqrt{1-\frac{c^2}{b^2}}\,\text{Cosh}\left[x+\text{ArcTanh}\left[\frac{c}{b}\right]\right]}}\right)\right)$$

Timed out after 60 seconds:

$$\left\{\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{5/2},\,x,\,3,\,0\right\}$$

$$\frac{64\left(b^2-c^2\right)\left(c\,\text{Cosh}[x]+b\,\text{Sinh}[x]\right)}{15\sqrt{\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}+\frac{16}{15}\sqrt{b^2-c^2}\left(c\,\text{Cosh}[x]+b\,\text{Sinh}[x]\right)\sqrt{\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}+$$

$$\frac{2}{5}\left(c\,\text{Cosh}[x]+b\,\text{Sinh}[x]\right)\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2}$$

???

Timed out after 60 seconds:

$$\left\{\left(\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2},\ x,\ 2,\ 0\right\}$$

$$\frac{8\sqrt{b^2-c^2}\ (c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{3\sqrt{\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}+\frac{2}{3}(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\sqrt{\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}$$

???

Timed out after 60 seconds:

$$\left\{\sqrt{\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]},\ x,\ 1,\ 0\right\}$$

$$\frac{2\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{\sqrt{\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

???

Timed out after 60 seconds:

$$\left\{\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{5/2},\ x,\ 3,\ 0\right\}$$

$$\frac{64\left(b^2-c^2\right)(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{15\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}-\frac{16}{15}\sqrt{b^2-c^2}\ (c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}+$$

$$\frac{2}{5}(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2}$$

???

Timed out after 60 seconds:

$$\left\{\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2},\ x,\ 2,\ 0\right\}$$

$$-\frac{8\sqrt{b^2-c^2}\ (c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{3\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}+\frac{2}{3}(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}$$

???

Timed out after 60 seconds:

$$\left\{\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]},\ x,\ 1,\ 0\right\}$$

$$\frac{2\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}{\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

???

Simplify::infd: Expression

$$2\sqrt{b^2-c^2}\left(\frac{\sqrt{-\sqrt{\text{Plus}[\ll 2\gg]}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\left(c+\sqrt{\text{Power}[\ll 2\gg]+\text{Times}[\ll 2\gg]}\,\text{Sinh}[x]\right)}{4c\sqrt{b^2-c^2}\,(c\,\text{Cosh}[x]+b\,\text{Sinh}[x])}+\right.$$

$$\frac{1}{8c\sqrt{b^2-c^2}}\left(-\left(2i\,c\sqrt{\text{Power}[\ll 2\gg]+\text{Times}[\ll 2\gg]}\,\text{EllipticF}[\text{ArcSin}[\text{Times}[\ll 2\gg]],2\,\text{Power}[\ll 2\gg]\,\text{Power}[\ll 2\gg]]\right.\right.$$

$$\sqrt{\text{Power}[\ll 2\gg]\,\text{Plus}[\ll 3\gg]}\,\sqrt{\text{Power}[\ll 2\gg]\,\text{Plus}[\ll 3\gg]}\,\sqrt{\text{Power}[\ll 2\gg]\,\text{Plus}[\ll 3\gg]}\Big)\Big/\Big((\text{Times}[\ll 3\gg]+$$

$$\left.\left.\text{Times}[\ll 3\gg])\sqrt{\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]}\right)-\frac{2\,b\,\text{Power}[\ll 2\gg]+i\,c\,\text{Plus}[\ll 2\gg]}{\sqrt{\text{Power}[\ll 2\gg]+\text{Times}[\ll 2\gg]}}\right)\right)$$

simplified to Indeterminate. ≫

Simplify::infd: Expression $2\left(\left((c\,\text{Cosh}[x]+b\,\text{Sinh}[x])\left(-c\sqrt{\text{Power}[\ll 2\gg]+\text{Times}[\ll 2\gg]}-b^2\,\text{Sinh}[x]+c^2\,\text{Sinh}[x]\right)\right.\right.$

$$\frac{b\,\text{Cosh}[x]\sqrt{\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]}}{(\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg])^2}+$$

$$\left.\left.\frac{c\,\text{Sinh}[x]\sqrt{\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]}}{(\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg])^2}\right)\right)\Big/\left(4c\sqrt{b^2-c^2}\,(b\,\text{Cosh}[x]+c\,\text{Sinh}[x])\right)-\left((c\,\text{Cosh}[x]\right.$$

$$+b\,\text{Sinh}[x])^2\left(\frac{b\,\text{Cosh}[x]\sqrt{\ll 1\gg}}{(\ll 1\gg)^2}+\frac{c\,\text{Sinh}[x]\sqrt{\ll 1\gg}}{(\ll 1\gg)^2}\right)\left(\left(6i\,c\left(b^2-\text{Power}[\ll 2\gg]\right)\text{EllipticF}[\text{ArcSin}[\text{Times}\right.\right.$$

$$[\ll 2\gg]],2\,\text{Power}[\ll 2\gg]\,\text{Power}[\ll 2\gg]]\sqrt{\text{Power}[\ll 2\gg]\,\text{Plus}[\ll 3\gg]}\,\sqrt{\text{Power}[\ll 2\gg]\,\text{Plus}[\ll 3\gg]}$$

$$\sqrt{\text{Power}[\ll 2\gg]\,\text{Plus}[\ll 3\gg]}\Big)\Big/\Big((\text{Times}[\ll 3\gg]+\text{Times}[\ll 3\gg])$$

$$\sqrt{\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]+\text{Times}[\ll 2\gg]}\Big)+$$

$$\left.\left.\left.\frac{\left(-\text{Power}[\ll 2\gg]+c^2\right)(2\,b\,\text{Power}[\ll 2\gg]+i\,c\,\text{Plus}[\ll 2\gg])}{\text{Power}[\ll 2\gg]+\text{Times}[\ll 2\gg]}\right)\right)\Big/\left(8c\sqrt{b^2-c^2}\,(b\,\text{Cosh}[x]+c\,\text{Sinh}[x])\right.\right.$$

$$\left.\left.\sqrt{-\sqrt{\text{Plus}[\ll 2\gg]}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}\right)\right)$$ simplified to Indeterminate. ≫

Unable to integrate:

$$\left\{\frac{1}{\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}},\,x,\,1,\,0\right\}$$

$$\frac{i\sqrt{2}\ \text{EllipticF}\left[\frac{1}{4}\left(\pi-2i\left(x+i\ \text{ArcTan}[i\,c,\,b]\right)\right),\,1\right]\sqrt{\frac{\sqrt{b^2-c^2}-b\,\text{Cosh}[x]-c\,\text{Sinh}[x]}{\sqrt{b^2-c^2}}}}{\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

$$\int\frac{1}{\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}\,dx$$

Timed out after 60 seconds:

$$\left\{\frac{1}{\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2}},\,x,\,2,\,0\right\}$$

$$-\frac{c\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{2\sqrt{b^2-c^2}\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2}}-\frac{i\,\text{EllipticF}\left[\frac{1}{4}\left(\pi-2i\left(x+i\ \text{ArcTan}[i\,c,\,b]\right)\right),\,1\right]\sqrt{\frac{\sqrt{b^2-c^2}-b\,\text{Cosh}[x]-c\,\text{Sinh}[x]}{\sqrt{b^2-c^2}}}}{2\sqrt{2}\sqrt{b^2-c^2}\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{1}{\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{5/2}},\,x,\,3,\,0\right\}$$

$$-\frac{c\,\text{Cosh}[x]+b\,\text{Sinh}[x]}{4\sqrt{b^2-c^2}\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{5/2}}+\frac{3\left(c\,\text{Cosh}[x]+b\,\text{Sinh}[x]\right)}{16\left(b^2-c^2\right)\left(-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]\right)^{3/2}}+$$

$$\frac{3i\,\text{EllipticF}\left[\frac{1}{4}\left(\pi-2i\left(x+i\ \text{ArcTan}[i\,c,\,b]\right)\right),\,1\right]\sqrt{\frac{\sqrt{b^2-c^2}-b\,\text{Cosh}[x]-c\,\text{Sinh}[x]}{\sqrt{b^2-c^2}}}}{16\sqrt{2}\left(b^2-c^2\right)\sqrt{-\sqrt{b^2-c^2}+b\,\text{Cosh}[x]+c\,\text{Sinh}[x]}}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{x}{a+b\,\text{Cosh}[x]\,\text{Sinh}[x]},\,x,\,9,\,0\right\}$$

$$\frac{x\,\text{Log}\left[1+\frac{b\,e^{2x}}{2a-\sqrt{4a^2+b^2}}\right]}{\sqrt{4a^2+b^2}}-\frac{x\,\text{Log}\left[1+\frac{b\,e^{2x}}{2a+\sqrt{4a^2+b^2}}\right]}{\sqrt{4a^2+b^2}}+\frac{\text{PolyLog}\left[2,\,-\frac{b\,e^{2x}}{2a-\sqrt{4a^2+b^2}}\right]}{2\sqrt{4a^2+b^2}}-\frac{\text{PolyLog}\left[2,\,-\frac{b\,e^{2x}}{2a+\sqrt{4a^2+b^2}}\right]}{2\sqrt{4a^2+b^2}}$$

$$\frac{1}{2}\left(-\frac{i\,\pi\,\text{ArcTanh}\left[\frac{-b+2\,a\,\text{Tanh}[x]}{\sqrt{4\,a^2+b^2}}\right]}{\sqrt{4\,a^2+b^2}}-\frac{1}{\sqrt{-4\,a^2-b^2}}\left(2\,\text{ArcCos}\left[-\frac{2\,i\,a}{b}\right]\text{ArcTanh}\left[\frac{(2\,a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]+\right.\right.$$

$$(\pi-4\,i\,x)\,\text{ArcTanh}\left[\frac{(2\,a-i\,b)\,\text{Tan}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]-\left(\text{ArcCos}\left[-\frac{2\,i\,a}{b}\right]+2\,i\,\text{ArcTanh}\left[\frac{(2\,a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]\right)$$

$$\text{Log}\left[\frac{(2\,i\,a+b)\left(-2\,i\,a+b+\sqrt{-4\,a^2-b^2}\right)\left(1+i\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}{b\left(2\,i\,a+b+i\,\sqrt{-4\,a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}\right]-$$

$$\left(\text{ArcCos}\left[-\frac{2\,i\,a}{b}\right]-2\,i\,\text{ArcTanh}\left[\frac{(2\,a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]\right)$$

$$\text{Log}\left[\frac{(2\,i\,a+b)\left(2\,i\,a-b+\sqrt{-4\,a^2-b^2}\right)\left(i+\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}{b\left(2\,a-i\,b+\sqrt{-4\,a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}\right]+$$

$$\left(\text{ArcCos}\left[-\frac{2\,i\,a}{b}\right]-2\,i\,\text{ArcTanh}\left[\frac{(2\,a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]-2\,i\,\text{ArcTanh}\left[\frac{(2\,a-i\,b)\,\text{Tan}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]\right)$$

$$\text{Log}\left[-\frac{(-1)^{3/4}\sqrt{-4\,a^2-b^2}\;e^{-x}}{2\sqrt{-i\,b}\;\sqrt{a+b\,\text{Cosh}[x]\,\text{Sinh}[x]}}\right]+$$

$$\left(\text{ArcCos}\left[-\frac{2\,i\,a}{b}\right]+2\,i\left(\text{ArcTanh}\left[\frac{(2\,a+i\,b)\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]+\text{ArcTanh}\left[\frac{(2\,a-i\,b)\,\text{Tan}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]}{\sqrt{-4\,a^2-b^2}}\right]\right)\right)$$

$$\text{Log}\left[\frac{(-1)^{1/4}\sqrt{-4\,a^2-b^2}\;e^{x}}{2\sqrt{-i\,b}\;\sqrt{a+b\,\text{Cosh}[x]\,\text{Sinh}[x]}}\right]+$$

$$i\left(\text{PolyLog}\left[2,\frac{\left(2\,i\,a+\sqrt{-4\,a^2-b^2}\right)\left(2\,i\,a+b-i\,\sqrt{-4\,a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}{b\left(2\,i\,a+b+i\,\sqrt{-4\,a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}\right]-\right.$$

$$\left.\left.\left.\text{PolyLog}\left[2,\frac{\left(2\,a+i\,\sqrt{-4\,a^2-b^2}\right)\left(-2\,a+i\,b+\sqrt{-4\,a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}{b\left(2\,i\,a+b+i\,\sqrt{-4\,a^2-b^2}\,\text{Cot}\left[\frac{1}{4}\,(\pi+4\,i\,x)\right]\right)}\right]\right)\right)\right)$$

Miscellaneous problems involving hyperbolic functions

Incorrect antiderivative:

$$\left\{\frac{\text{Tanh}[x]^5}{\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}},\ x,\ 9,\ 0\right\}$$

$$\frac{b\,\text{ArcTanh}\left[\frac{b+2c\,\text{Tanh}[x]^2}{2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{4c^{3/2}}-\frac{\text{ArcTanh}\left[\frac{b+2c\,\text{Tanh}[x]^2}{2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{c}}+$$

$$\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Tanh}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a+b+c}}-\frac{\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}{2c}$$

$$-\frac{\sqrt{\frac{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}}}{2c}+$$

$$\left(\left(-\left(2\sqrt{\left(\frac{3a}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{b}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{3c}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\right.\right.\right.\right.$$

$$\left.\left.\left.\left.\frac{4a\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{4c\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{a\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\right.\right.\right.\right.$$

$$\left.\left.\left.\left.\frac{b\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{c\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}\right)\text{Sinh}[2x]\right)\right/$$

$$(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$\left(2b\sqrt{\left(\frac{3a}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{b}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{3c}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\right.\right.$$

$$\left.\left.\frac{4a\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{4c\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{a\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\right.\right.$$

$$\left.\left.\frac{b\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{c\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}\right)\text{Sinh}[2x]\right)\Big/$$

$$(c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))+$$

$$\left(\sqrt{\left(\frac{3a}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{b}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{3c}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\right.\right.$$

$$\left.\left.\frac{4a\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{4c\,\text{Cosh}[2x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{a\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\right.\right.$$

$$\left.\left.\frac{b\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{c\,\text{Cosh}[4x]}{3+4\,\text{Cosh}[2x]+\text{Cosh}[4x]}\right)\text{Sinh}[4x]\right)\Big/$$

$$\left.(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)$$

$$\left(\left((b-c)\,(1+\text{Cosh}[2x])\,\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}\right.\right.$$

$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]\,\text{Log}\left[b+2c\,\text{Tanh}[x]^2+\right.$$

$$\left.2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]\,\text{Sech}[x]\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\right.$$

$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\left.\left.\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\right)\Big/$$

$$\left(8\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\,\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\,\right)+$$

$$\left(c\,\text{Cosh}[2x]\,(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$

$$2b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)$$

$$\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\left[\right.\right.$$

$$\left((b+2c)\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/$$

$$\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$

$$\left.\left.b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$

$$\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$c\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\Big]\Bigg)$$

$$\text{Sech}[x]^2\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\right.$$
$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$
$$\left.\frac{c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$
$$(4\,a\,\text{Sinh}[2\,x]-4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])\Bigg)\Bigg/$$

$$\Bigg(32\,(b-c+c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-4\,a-2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)$$
$$\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.}$$
$$\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\right.\right.$$
$$\left.\left.(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\right.}$$
$$\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.}$$
$$\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)\Big)$$

$$\sqrt{\Big(1+\frac{1}{2\,(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Big)}\Big)\Big)\Big)\Big/$$

$$\Bigg(-\Bigg((b-c)\,(1+\text{Cosh}[2x])\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^2$$

$$\text{Log}\big[b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\big]$$

$$\Bigg(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\Bigg)\Bigg)\Big/$$

$$\Big(8\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}$$

$$\sqrt{(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\Big)+$$

$$\Bigg(c\,\text{Cosh}[2x]\,(8a\,\text{Cosh}[2x]-8c\,\text{Cosh}[2x]+8a\,\text{Cosh}[4x]+8b\,\text{Cosh}[4x]+8c\,\text{Cosh}[4x])$$

$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\Big(2a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$2b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$2c\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\Big)$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(2b+4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)\Big)$$

$$\Bigg(\frac{\text{ArcTanh}\Big[\frac{\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\Big[$$

$$\Big((b+2c)\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\Big)\Big/$$

$$\Big(2\sqrt{c}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\Big(a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+c$$

$$\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$

$$\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]\Bigg)\,\text{Sech}[x]^2$$

$$\Bigg(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\Bigg)\Bigg)\Big/$$

$$\Big(32\,(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(-4a-2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\Big(-2a+2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)\Big)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\sqrt{(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\Big)-\Bigg((b-c)\,(1+\text{Cosh}[2x])$$

$$\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$
$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$
$$\text{Log}\left[b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]$$
$$\text{Sech}[x]^2$$
$$\Bigg(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$
$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$
$$\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\Bigg)\Bigg)\Big/$$
$$\Big(8\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}$$
$$\sqrt{(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\Big)-$$
$$\Bigg((b-c)\,\sqrt{c}\,(1+\text{Cosh}[2x])\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$
$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$
$$\text{Csch}[x]$$
$$\text{Log}\left[b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]$$
$$\text{Sech}[x]\,\text{Sinh}[2x]$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\Bigg/$$

$$\left(4\sqrt{2}\,(b-c+c\,\text{Cosh}[2x])^2\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\,\sqrt{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)+$$

$$\left((b-c)\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}\,(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]\right.$$

$$\left.\text{Log}\left[b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]\right)$$

$$\text{Sech}[x]\,\text{Sinh}[2x]$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\Bigg/$$

$$\left(4\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\,\sqrt{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)-$$

$$\left(c^2\,\text{Cosh}[2x]\,(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$

$$2b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\left[\right.\right.$$

$$\left((b+2\,c)\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/$$

$$\left(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$

$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\left(a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.$$

$$b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c$$

$$\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]\right)$$

$$\text{Sech}[x]^2\,\text{Sinh}[2\,x]\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\right.$$

$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$

$$\left.\frac{c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$

$$\left.(4\,a\,\text{Sinh}[2\,x]-4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])\right)\Big/$$

$$\left(16\,(b-c+c\,\text{Cosh}[2\,x])^2\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-4\,a-2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$

$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$

$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)\Big)$$

$$\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)$$

$$\sqrt{\Big(-1+\frac{1}{2\,(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+$$
$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Big)}$$

$$\sqrt{\Big(1+\frac{1}{2\,(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+$$
$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Big)}$$

$$\sqrt{(3a-b+3c+4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Sech}[x]^4}\Big)+$$

$$\Bigg(c\,(3a-b+3c+4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$

$$\Big(2a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(2b+4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Big)}$$

$$\Bigg(\frac{\mathrm{ArcTanh}\Big[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\mathrm{ArcTanh}\Big[$$

$$\Big((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$
$$\Big(2\sqrt{c}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+c$$
$$\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\Big]$$

$$\text{Sech}[x]^2\,\text{Sinh}[2\,x]\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\right.$$
$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$
$$\left.\frac{c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$
$$\Big/\left(4\,a\,\text{Sinh}[2\,x]-4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x]\right)$$

$$\left(16\,(b-c+c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-4\,a-2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$
$$\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}\right.$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.$$

$$c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\sqrt{\left(1 + \frac{1}{2\,(a+b+c)}\left(-2a + 2c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\sqrt{(3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\Bigg) - \Bigg(c\,\text{Cosh}[2x]$$

$$(3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])$$
$$\Big(2a\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$
$$2b\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$
$$2c\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\Big)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(2b + 4c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\Bigg(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}} - \frac{1}{\sqrt{c}}\,\text{ArcTanh}\Bigg[$$

$$\Big((b + 2c)\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\Big)\Big/$$
$$\Big(2\sqrt{c}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\right)}\Big)\Bigg] +$$
$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\Big(a\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$
$$b\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} + c$$
$$\sqrt{3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} + \sqrt{a+b+c}$$
$$\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\right)}\Big)\Big]\Bigg)\,\text{Sech}[x]^2$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(4a\,\text{Sinh}[2x]-4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left.(8a\,\text{Sinh}[2x]-8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])\right/$$

$$\left(64(b-c+c\,\text{Cosh}[2x])(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])^{3/2}\right.$$

$$\sqrt{\left(2b^2-8ac+a(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\left.\sqrt{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)-\left((b-c)(1+\text{Cosh}[2x])\right.$$

$$\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\text{Csch}[x]\,\text{Log}\left[b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]\text{Sech}[x]\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)(2(4a-4c)\,\text{Sinh}[2x]+4(a+b+c)\,\text{Sinh}[4x])\Big/\left(16\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\,(3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}\sqrt{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)+\left((b-c)(1+\text{Cosh}[2x])\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}\,\text{Csch}[x]\,\text{Log}\left[b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]\text{Sech}[x]\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)(8(a-c)\,\text{Sinh}[2x]+4(a+b+c)\,\text{Sinh}[4x])\Big/\left(8\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\sqrt{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)+\left(c\,\text{Cosh}[2x]\left(2a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+2b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$

$$2\,c\,\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Bigg)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(2\,b+4\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)}\Big)\Bigg)}$$

$$\Bigg(\frac{\text{ArcTanh}\Big[\frac{\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\Big[$$

$$\Big((b+2\,c)\,\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)\Big/$$

$$\Big(2\sqrt{c}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)}\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\,\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+b\,\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c\,\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)}\Big)\Big]\Bigg)\,\text{Sech}[x]^2$$

$$\Bigg(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\Bigg)$$

$$(4\,a\,\text{Sinh}[2\,x]-4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$

$$(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])\Bigg)\Big/$$

$$\Bigg(32\,(b-c+c\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$

$$\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)\Bigg)$$

$$\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.}$$
$$\left.\left.b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.$$
$$\left.\left.c\cosh[4x])+c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)\Bigg)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.$$
$$\left.\left.c\cosh[4x])+c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)\Bigg)$$

$$\sqrt{(3a-b+3c+4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Sech}[x]^4}\Bigg)-\Bigg(c\cosh[2x]$$

$$(3a-b+3c+4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$
$$\Big(2a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)\Bigg)$$

$$\left(\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\mathrm{ArcTanh}\left[\right.\right.$$

$$\left.\left.\Big((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\right)\Big/$$

$$\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right]+$$

$$\frac{1}{\sqrt{a+b+c}}2\log\left[2\left(a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right]\Bigg)\operatorname{Sech}[x]^2$$

$$\left(\frac{b\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{c\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\cosh[2x]\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$(4a\sinh[2x]-4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$\Big(a\left(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)+b\left(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)+c\left(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)\Big)\Bigg/\Bigg(128\sqrt{2}\,(a+b+c)$$

$$(b-c+c\cosh[2x])\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$

$$\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right)}$$

$$\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}$$

$$b \cosh[4x] + c \cosh[4x]) + b\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + c\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]))\Big)\Big)$$

$$\left(1 + \frac{1}{2(a+b+c)}\left(-2a + 2c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + b\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + c\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x])\right)\right)^{3/2}\right.$$

$$\left.\sqrt{(3a - b + 3c + 4(a - c)\cosh[2x] + (a + b + c)\cosh[4x])\,\mathrm{Sech}[x]^4}\right) - \left(c \cosh[2x]\right.$$

$$\frac{(3a - b + 3c + 4(a - c)\cosh[2x] + (a + b + c)\cosh[4x])}{\left(2a\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]} + 2b\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]} + 2c\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]}\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b + 4c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + b\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + c\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x])\right)\right)\right.}$$

$$\left.\left(\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}} - \frac{1}{\sqrt{c}}\mathrm{ArcTanh}\right.\right.$$

$$\left.\left[\left((b + 2c)\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]}\right)\Big/\left(2\sqrt{c}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + b\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + c\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x])\right)\right)\right] +$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\mathrm{Log}\left[2\left(a\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]} + b\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]} + c\sqrt{3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]} + \sqrt{a+b+c}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + b\,(3a - b + 3c + 4a \cosh[2x] - 4c \cosh[2x] + a \cosh[4x] + b \cosh[4x] + c \cosh[4x]) + \right.\right.\right.\right.$$

$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)\Big]\Bigg)\,\text{Sech}[x]^2$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(4a\,\text{Sinh}[2x]-4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$(a\,(8a\,\text{Sinh}[2x]-8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+$$
$$b\,(8a\,\text{Sinh}[2x]-8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+$$
$$c\,(8a\,\text{Sinh}[2x]-8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x]))\Bigg)\Big/\Bigg(128\sqrt{2}\;(a+b+c)$$

$$(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$
$$\Big(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$
$$\Big(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$\left.b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$
$$\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\Big)$$
$$\left(-1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[\right.\right.\right.\right.$$
$$\left.\left.\left.\left.4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[\right.\right.\right.\right.$$
$$\left.\left.\left.\left.4x])+c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)^{3/2}$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\sqrt{(3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\operatorname{sech}[x]^4}\Bigg)+\Bigg(c\cosh[2x]$$

$$(3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$
$$\Big(2a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$

$$\Bigg(\frac{\operatorname{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\sqrt{c}}\right]}{\sqrt{c}}-$$

$$\frac{1}{\sqrt{c}}\operatorname{ArcTanh}\Big[\Big((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$
$$\Big(2\sqrt{c}\sqrt{(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])}\Big)\Big]+$$
$$\frac{1}{\sqrt{a+b+c}}2\operatorname{Log}\Big[2\Big(a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$
$$\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])}\Big)\Big]\Bigg)\operatorname{Sech}[x]^2$$

$$\Bigg(\frac{b\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{c\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$
$$\frac{c\cosh[2x]\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)$$
$$(4a\sinh[2x]-4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$
$$(a(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$
$$b(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$c\,(8\,a\,\text{Sinh}[2\,x] - 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]))\Bigg) \Bigg/ \Bigg(64\sqrt{2}\;(a+b+c)$$

$$(b - c + c\,\text{Cosh}[2\,x])\sqrt{3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]}$$
$$\big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$b\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$c\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\big)$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-4\,a - 2\,b + \sqrt{2}\,\sqrt{\big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] +$$
$$c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$c\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]))\big)\Big)\Bigg)}$$
$$\Big(-2\,a + 2\,c + \sqrt{2}\,\sqrt{\big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$b\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$c\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]))\big)\Big)$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(2\,b + 4\,c + \sqrt{2}\,\sqrt{\big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] +$$
$$c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$c\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]))\big)\Big)\Bigg)}$$
$$\sqrt{\Bigg(-1 + \frac{1}{2\,(a+b+c)}\Big(-2\,a + 2\,c + \sqrt{2}\,\sqrt{\big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] +$$
$$b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] +$$
$$c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]))\big)\Big)\Bigg)}$$
$$\sqrt{\Bigg(1 + \frac{1}{2\,(a+b+c)}\Big(-2\,a + 2\,c + \sqrt{2}\,\sqrt{\big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] +$$
$$b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] +$$
$$c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]))\big)\Big)\Bigg)}$$

$$\sqrt{(3\,a - b + 3\,c + 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])\,\text{Sech}[x]^4}\Bigg) - \Bigg(c\,\text{Cosh}[2\,x]$$
$$(3\,a - b + 3\,c + 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])$$
$$\Big(2\,a\sqrt{3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]} +$$
$$2\,b\sqrt{3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]} +$$
$$2\,c\sqrt{3\,a - b + 3\,c + 4\,a\,\text{Cosh}[2\,x] - 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right)}$$

$$\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)\Big/\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right]+\frac{1}{\sqrt{a+b+c}}2\,\text{Log}\left[2\left(a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right]\right)\text{Sech}[x]^2$$

$$\left(\frac{b\,\text{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{c\,\text{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\cosh[2x]\,\text{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$(4a\sinh[2x]-4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$\Big(a(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+b(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+c(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])\Big)\Big/$$

$$\left(32\sqrt{2}\,(b-c+c\cosh[2x])\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.$$

$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)$$

$$\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.}$$
$$\left.\left.b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\right.\right.$$
$$\left.\left.(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)^2$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.$$
$$\left.\left.\left.c\cosh[4x])+c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.$$
$$\left.\left.\left.c\cosh[4x])+c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)$$

$$\sqrt{(3a-b+3c+4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Sech}[x]^4}\Big)-\Bigg(c\cosh[2x]$$

$$(3a-b+3c+4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$
$$\Big(2a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\;+$$
$$2b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\;+$$
$$2c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\cosh[4x])+b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)$$

$$\left(\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\mathrm{ArcTanh}\Big[\right.$$

$$\left.\Big((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/\right.$$

$$\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right]+$$

$$\frac{1}{\sqrt{a+b+c}}2\log\left[2\left(a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right]\Bigg)\operatorname{Sech}[x]^2$$

$$\left(\frac{b\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{c\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\cosh[2x]\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$(4a\sinh[2x]-4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$\left(a\left(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)+b\left(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)+c\left(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)\right)\Big/\left(64\sqrt{2}\,(a+b+c)\right.$$

$$(b-c+c\cosh[2x])\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$

$$\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)$$

$$\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right)^{3/2}$$

$$\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Sech}[x]^4}\Bigg)-\Bigg(c\,\text{Cosh}[2\,x]$$

$$(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\Big(2\,a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,c\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2\,b+4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\Bigg(\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\Bigg[$$

$$\left((b+2\,c)\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/$$

$$\Big(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\Big)\Bigg]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c$$

$$\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Big]\Bigg)\operatorname{Sech}[x]^2$$

$$\left(\frac{b\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{c\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\cosh[2x]\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$
$$(4a\sinh[2x]-4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$
$$(a(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$
$$b(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$
$$c(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]))\Bigg)\Bigg/$$

$$\Bigg(64(b-c+c\cosh[2x])\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$
$$(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))^{3/2}$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-4a-2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Bigg)}$$
$$\Big(-2a+2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)$$
$$\sqrt{\Bigg(-1+\frac{1}{2(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+$$
$$b\cosh[4x]+c\cosh[4x])+b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Bigg)}$$
$$\sqrt{\Bigg(1+\frac{1}{2(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+$$
$$b\cosh[4x]+c\cosh[4x])+b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Bigg)}\Bigg)$$

$$\sqrt{(3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\operatorname{sech}[x]^4}\Bigg)+\Bigg(c\cosh[2x]$$

$$(3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(2b+4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Bigg)}$$

$$\Bigg(\frac{\operatorname{ArcTanh}\Big[\frac{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\operatorname{ArcTanh}\Big[$$

$$\Big((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$

$$\Big(2\sqrt{c}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}2\operatorname{Log}\Big[2\Big(a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$

$$\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$

$$\sqrt{\big(2b^2-8ac+a(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]\Bigg)\operatorname{Sech}[x]^2$$

$$\Bigg(\frac{b\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{c\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$

$$\frac{c\cosh[2x]\operatorname{Sech}[x]^2\sinh[2x]}{\sqrt{3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)$$

$$(4a\sinh[2x]-4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$\Bigg(\frac{a(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])}{\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}+$$

$$\frac{b\,(8\,a\,\text{Sinh}[2\,x]-8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\left.\frac{c\,(8\,a\,\text{Sinh}[2\,x]-8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}\right)\Bigg/$$

$$\left(32\,(b-c+c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-4\,a-2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)$$
$$\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}\right.$$
$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2\,a+2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)$$

$$\left.\sqrt{(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Sech}[x]^4}\right)+\left((b-c)\,(1+\text{Cosh}[2\,x])\right.$$

$$(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$
$$\text{Csch}[x]$$
$$\text{Log}\left[b+2\,c\,\text{Tanh}[x]^2+2\,\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\right]$$
$$\text{Sech}[x]$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\right.$$

$$\left(\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$\left(-\frac{4\,(3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sinh}[2x]}{(1+\text{Cosh}[2x])^3}+\frac{2\,(4a-4c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x]}{(1+\text{Cosh}[2x])^2}\right)\Big/$$

$$\left(16\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\sqrt{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\left.\sqrt{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)+$$

$$\left(c\,\text{Cosh}[2x]\,(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$

$$2b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\text{Sech}[x]^2$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(4a\,\text{Sinh}[2x]-4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left((8a\,\text{Sinh}[2x]-8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])\Big/\right.$$

$$\left(4\sqrt{2}\ c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\left(1-\frac{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}{8c}\right)\right)-$$

$$\left((b+2c)\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])\right)\Big/$$

$$\left(4\sqrt{c}\ \sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$

$$\sqrt{2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+}$$

$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)-$$

$$\left((b+2c)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$

$$(a\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$b\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$\left.c\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]))\right)\Big/$$

$$\left(4\sqrt{c}\ \left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$

$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)^{3/2}\right)\Big/$$

$$\left(\sqrt{c}\ \left(1-\left((b+2c)^2\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\Big/\right.\right.$$

$$\left(4c\,\left(2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$

$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)+$$

$$\left(2\left(\frac{a\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])}{2\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}+\right.\right.$$

$$\frac{b\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])}{2\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}+$$

$$\frac{c\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])}{2\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}+$$

$$\left(\sqrt{a+b+c}\ \left(a\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+\right.\right.$$

$$b\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$\left.\left.c\,(8a\sinh[2x]-8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])\right)\right)\Big/$$

$$\left(2\sqrt{2b^2-8ac+a\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.$$

$$b\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.\left.\left.c\,(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)\Big/$$

$$\left(\sqrt{a+b+c}\ \left(a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}$$
$$b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\Bigg)\Bigg)\Bigg/$$

$$\left(32\left(b-c+c\cosh[2x]\right)\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$
$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}$$
$$b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.\right.$$
$$\left.\left.\left.c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\left(-2a+2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}\right.$$
$$b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(-2a+2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(-2a+2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\cosh[4x]\right)+c\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\left.\sqrt{\left(3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]\right)\operatorname{Sech}[x]^4}\right)-\left(c\cosh[2x]\right.$$
$$\left(3a-b+3c+4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]\right)$$
$$\left(2a\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\right.$$
$$2b\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$\left.2c\sqrt{3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c+4a\cosh[2x]-4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}$$

$$c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}} - \frac{1}{\sqrt{c}}\,\text{ArcTanh}\Big[\right.$$

$$\Big((b+2c)\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\Big)\Big/$$
$$\Big(2\sqrt{c}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big] +$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]} +$$
$$b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]} + c$$
$$\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]} + \sqrt{a+b+c}$$
$$\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]\Big)\,\text{Sech}[x]^2$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}} - \frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}} +\right.$$
$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$
$$(4a\,\text{Sinh}[2x] - 4c\,\text{Sinh}[2x] + 2a\,\text{Sinh}[4x] + 2b\,\text{Sinh}[4x] + 2c\,\text{Sinh}[4x])$$

$$\text{Tanh}[x]\Bigg)\Big/$$

$$\Big(16\,(b - c + c\,\text{Cosh}[2x])\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$
$$\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}$$
$$\sqrt{\Big(\frac{1}{a+b+c}\,\Big(-4a-2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x] +$$

$$c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\Big(-2a + 2c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +\right.}$$
$$b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$\left.c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\right)\Big)$$

$$\sqrt{\Big(-1 + \frac{1}{2\,(a+b+c)}\Big(-2a + 2c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] +\right.}$$
$$\left.b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] +\right.$$
$$\left.c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\right)\Big)\Big)}$$

$$\sqrt{\Big(1 + \frac{1}{2\,(a+b+c)}\Big(-2a + 2c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] +\right.}$$
$$\left.b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] +\right.$$
$$\left.c\,\text{Cosh}[4x]) + c\,(3a - b + 3c + 4a\,\text{Cosh}[2x] - 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\right)\Big)\Big)}$$

$$\sqrt{(3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\Big) - \Big((b - c)\,(1 + \text{Cosh}[2x])$$

$$\sqrt{\frac{3a - b + 3c + (4a - 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}{(1 + \text{Cosh}[2x])^2}}$$

$$(3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])$$
$$\text{Csch}[x]$$
$$\text{Log}\left[b + 2c\,\text{Tanh}[x]^2 + 2\sqrt{c}\,\sqrt{a + b\,\text{Tanh}[x]^2 + c\,\text{Tanh}[x]^4}\,\right]$$
$$\text{Sech}[x]$$
$$\Bigg(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} -$$
$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$
$$\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}}\Bigg)$$
$$\Big(\text{Sech}[x]^4\,(8\,(a - c)\,\text{Sinh}[2x] + 4\,(a + b + c)\,\text{Sinh}[4x]) -$$
$$4\,(3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4\,\text{Tanh}[x]\Big)\Big/$$
$$\Big(16\sqrt{2}\,\sqrt{c}\,(b - c + c\,\text{Cosh}[2x])\,\sqrt{3a - b + 3c + (4a - 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}$$
$$\left((3a - b + 3c + 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4\right)^{3/2}\Big) -$$

$$\left(c\,\text{Cosh}[2x]\,(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$
$$2b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$
$$\left.2c\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(2b+4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\left[\right.\right.$$
$$\left((b+2c)\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/$$
$$\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\Big]+$$
$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\left(a\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$
$$b\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+c$$
$$\sqrt{3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$\left.\left.b\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c+4a\,\text{Cosh}[2x]-4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\Big]\right)\text{Sech}[x]^2$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$
$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$
$$(4a\,\text{Sinh}[2x]-4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\Big(\text{Sech}[x]^4\,(8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])-$$

$$4\,(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4\,\text{Tanh}[x]\Big)\Big/$$

$$\Big(64\,(b-c+c\,\text{Cosh}[2x])\,\sqrt{3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\sqrt{\big(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)}$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(-4a-2b+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$
$$c\,\text{Cosh}[4x])+b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Big)}$$

$$\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Big)$$

$$\sqrt{\Big(-1+\frac{1}{2\,(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+$$
$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$
$$c\,\text{Cosh}[4x])+c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Big)}$$

$$\sqrt{\Big(1+\frac{1}{2\,(a+b+c)}\Big(-2a+2c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+$$
$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$
$$c\,\text{Cosh}[4x])+c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Big)}$$

$$\Big((3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4\Big)^{3/2}\Big)+\Big((b-c)\,(1+\text{Cosh}[2x])$$

$$\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$
$$\text{Csch}[x]$$
$$\text{Log}\big[b+2\,c\,\text{Tanh}[x]^2+2\,\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,\big]$$
$$\text{Sech}[x]$$

$$\Big(\frac{2\,b\,\text{Cosh}[2x]\,\text{Sech}[x]^2}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\frac{2\,c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$

$$\frac{2\,c\,\text{Cosh}[2\,x]^2\,\text{Sech}[x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$

$$\frac{2\,c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-$$

$$\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}+$$

$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}-$$

$$\frac{c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}-$$

$$\frac{2\,b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,\text{Tanh}[x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$

$$\frac{2\,c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,\text{Tanh}[x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-$$

$$\left.\frac{2\,c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,\text{Tanh}[x]}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)\Bigg)\Bigg/$$

$$\left(8\sqrt{2}\,\sqrt{c}\,(b-c+c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c+(4\,a-4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}\right.$$

$$\left.\sqrt{(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Sech}[x]^4}\right)+$$

$$\Bigg(c\,\text{Cosh}[2\,x]\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\left(2\,a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.$$

$$2\,b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$\left.2\,c\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(2\,b+4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.\right.$$

$$\left.\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.\right.$$

$$\left.\left.\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)\right)\Bigg)$$

$$\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{\sqrt{c}}-\frac{1}{\sqrt{c}}\,\text{ArcTanh}\left[\right.\right.$$

$$\left((b+2\,c)\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/$$

$$\left(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$

$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$b\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c$$

$$\sqrt{3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$b\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.c\,(3\,a-b+3\,c+4\,a\,\text{Cosh}[2\,x]-4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]\Bigg)$$

$$\text{Sech}[x]^2\,(4\,a\,\text{Sinh}[2\,x]-4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$

$$\left(\frac{2\,b\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\right.$$

$$\frac{2\,c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$

$$\frac{2\,c\,\text{Cosh}[2\,x]^2\,\text{Sech}[x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$

$$\frac{2\,c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]^2}{\sqrt{3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-$$

$$\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}+$$

$$\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}-$$

$$\frac{c\,\text{Cosh}[2\,x]\,\text{Sech}[x]^2\,\text{Sinh}[2\,x]\,(8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c+4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}-$$

$$\frac{2\,b\,\text{Sech}[x]^2\,\text{Sinh}[2x]\,\text{Tanh}[x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{2\,c\,\text{Sech}[x]^2\,\text{Sinh}[2x]\,\text{Tanh}[x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\left.\left.\frac{2\,c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]\,\text{Tanh}[x]}{\sqrt{3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\right/$$

$$\left(32\,(b-c+c\,\text{Cosh}[2x])\,\sqrt{3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-4a-2b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)$$
$$\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.}$$
$$\left.\left.b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(-2a+2c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c+4\,a\,\text{Cosh}[2x]-4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)$$

$$\left.\sqrt{(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}\right)+\left((b-c)\,(1+\text{Cosh}[2x])\right.$$

$$\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$(3a-b+3c+4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$
$$\text{Csch}[x]$$
$$\text{Sech}[x]$$

$$\left(\frac{b\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{c\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Cosh}[2x]\,\text{Sech}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\left(4c\,\text{Sech}[x]^2\,\text{Tanh}[x]+\frac{\sqrt{c}\,\left(2b\,\text{Sech}[x]^2\,\text{Tanh}[x]+4c\,\text{Sech}[x]^2\,\text{Tanh}[x]^3\right)}{\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right)\Big/\left(8\sqrt{2}\sqrt{c}\,(b-c+c\,\text{Cosh}[2x])\sqrt{\frac{3a-b+3c+(4a-4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(3a-b+3c+4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Sech}[x]^4}}\left(b+2c\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\right)\right)$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Tanh}[x]^3}{\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}},\,x,\,7,\,0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{b+2c\,\text{Tanh}[x]^2}{2\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{c}}+\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Tanh}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a+b+c}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}},\,x,\,4,\,0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Tanh}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a+b+c}}$$

???

Unable to integrate:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}},\,x,\,6,\,0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{2a+b\,\text{Tanh}[x]^2}{2\sqrt{a}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a}}+\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Tanh}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a+b+c}}$$

$$\int \frac{\text{Coth}[x]}{\sqrt{a + b\,\text{Tanh}[x]^2 + c\,\text{Tanh}[x]^4}}\,dx$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Coth}[x]^3}{\sqrt{a + b\,\text{Tanh}[x]^2 + c\,\text{Tanh}[x]^4}}, x, 9, 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{2a+b\,\text{Tanh}[x]^2}{2\sqrt{a}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a}} + \frac{b\,\text{ArcTanh}\left[\frac{2a+b\,\text{Tanh}[x]^2}{2\sqrt{a}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{4a^{3/2}} +$$

$$\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Tanh}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{2\sqrt{a+b+c}} - \frac{\text{Coth}[x]^2\sqrt{a + b\,\text{Tanh}[x]^2 + c\,\text{Tanh}[x]^4}}{2a}$$

???

Incorrect antiderivative:

$$\left\{\frac{\text{Coth}[x]^5}{\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}, x, 9, 0\right\}$$

$$\frac{b\,\text{ArcTanh}\left[\frac{b+2c\,\text{Coth}[x]^2}{2\sqrt{c}\,\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{4c^{3/2}} - \frac{\text{ArcTanh}\left[\frac{b+2c\,\text{Coth}[x]^2}{2\sqrt{c}\,\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{2\sqrt{c}} +$$

$$\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Coth}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a+b+c}} - \frac{\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}{2c}$$

$$-\frac{\sqrt{\frac{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}{3-4\,\text{Cosh}[2x]+\text{Cosh}[4x]}}}{2c} +$$

$$\left(\left(\left(2\sqrt{\left(\frac{3a}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} - \frac{b}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} + \frac{3c}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} -\right.\right.\right.\right.$$

$$\left.\left.\left.\left.\frac{4a\,\text{Cosh}[2x]}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} + \frac{4c\,\text{Cosh}[2x]}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} + \frac{a\,\text{Cosh}[4x]}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} +\right.\right.\right.\right.$$

$$\left.\left.\left.\left.\frac{b\,\text{Cosh}[4x]}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]} + \frac{c\,\text{Cosh}[4x]}{3 - 4\,\text{Cosh}[2x] + \text{Cosh}[4x]}\right)\text{Sinh}[2x]\right)\right/$$

$$(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) -$$

$$\left(2\,b\,\sqrt{\left(\frac{3\,a}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{b}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{3\,c}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)\text{Sinh}[2\,x]}\Big/\left(c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)+\left(\sqrt{\left(\frac{3\,a}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{b}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{3\,c}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)\text{Sinh}[4\,x]}\Big/\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)\right)$$

$$\left(\left((b-c)\,(1+\text{Cosh}[2\,x])\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\right.\right.$$

$$\sqrt{\frac{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}{(1+\text{Cosh}[2\,x])^2}}\;\text{Csch}[x]$$

$$\left(\text{Log}\left[\sqrt{c}\;\text{Tanh}[x]^2\right]-\text{Log}\left[2\,c+b\,\text{Tanh}[x]^2+2\,\sqrt{c}\;\sqrt{c+\text{Tanh}[x]^2\left(b+a\,\text{Tanh}[x]^2\right)}\;\right]\right)$$

$$\text{Sech}[x]\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)\Big)\Big/$$

$$\left(8\,\sqrt{2}\;\sqrt{c}\;(b-c-c\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}\right.$$

$$\left.\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\right)-$$

$$\left(c\,\text{Cosh}[2\,x]\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\right.$$

$$\left(2\,a\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\right.$$
$$2\,b\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$\left.2\,c\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)}$$
$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$
$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2\,c)\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/\right.$$
$$\left(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$\left.\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]+$$
$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\left[2\left(a\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\right.\right.$$
$$b\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$c\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]\right)$$
$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\right.$$
$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$
$$\left.\frac{c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$

$$\left(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x]\right)\Bigg/$$

$$\Bigg(16\,(b-c-c\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4\,a+2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)}$$
$$\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.}$$
$$\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\right.\right.$$
$$\left.\left.(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\right.}$$
$$\left.\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)}$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+\right.\right.\right.}$$
$$\left.\left.\left.a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)}$$
$$\left.\left.\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\right)\right)\Bigg/$$

$$\left(-\left(c\,\text{Cosh}[2\,x]\,(-8\,a\,\text{Cosh}[2\,x]+8\,c\,\text{Cosh}[2\,x]+8\,a\,\text{Cosh}[4\,x]+8\,b\,\text{Cosh}[4\,x]+8\,c\,\text{Cosh}[4\,x])\right.\right.$$

$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$
$$\left(2\,a\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.$$
$$2\,b\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,c\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Bigg)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2\,b-4\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)}\Big)\Bigg)}$$

$$\text{Csch}[x]^2\Bigg(-\frac{\text{ArcTanh}\Big[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{2\sqrt{c}}-$$

$$\frac{1}{2\sqrt{c}}\text{ArcTanh}\Big[\Big((b+2\,c)\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)\Big/\Big(2\sqrt{c}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)}\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\text{Log}\Big[2\Big(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)}\Big)\Big]\Bigg)$$

$$\Bigg(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\Bigg)\Big/$$

$$\Big(16\,(b-c-c\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))}\right)\right)}$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))}\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))}\right)\right)}$$

$$\sqrt{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg)-\Bigg((b-c)\,(1+\cosh[2x])$$

$$(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\cosh[2x]+(a+b+c)\cosh[4x]}{(1+\cosh[2x])^2}}$$

$$\mathrm{Csch}[x]^2$$

$$\left(\mathrm{Log}\left[\sqrt{c}\,\tanh[x]^2\right]-\mathrm{Log}\left[2c+b\tanh[x]^2+2\sqrt{c}\,\sqrt{c+\tanh[x]^2\left(b+a\tanh[x]^2\right)}\,\right]\right)$$

$$\left(-\frac{b\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$

$$\frac{c\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$

$$\left.\frac{c\cosh[2x]\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)\Bigg)\Bigg/$$

$$\left(8\sqrt{2}\,\sqrt{c}\,(b-c-c\cosh[2x])\sqrt{3a-b+3c+(-4a+4c)\cosh[2x]+(a+b+c)\cosh[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\right)-$$

$$\left((b-c)\,(1+\text{Cosh}[2x])\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\left(\text{Log}\left[\sqrt{c}\;\text{Tanh}[x]^2\right]-\text{Log}\left[2c+b\,\text{Tanh}[x]^2+2\sqrt{c}\;\sqrt{c+\text{Tanh}[x]^2\left(b+a\,\text{Tanh}[x]^2\right)}\;\right]\right)$$

$$\text{Sech}[x]^2$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\left.\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\right)\Big/$$

$$\left(8\sqrt{2}\;\sqrt{c}\;(b-c-c\,\text{Cosh}[2x])\,\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\;\right)+$$

$$\left((b-c)\,\sqrt{c}\;(1+\text{Cosh}[2x])\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\text{Csch}[x]$$

$$\left(\text{Log}\left[\sqrt{c}\;\text{Tanh}[x]^2\right]-\text{Log}\left[2c+b\,\text{Tanh}[x]^2+2\sqrt{c}\;\sqrt{c+\text{Tanh}[x]^2\left(b+a\,\text{Tanh}[x]^2\right)}\;\right]\right)$$

$$\text{Sech}[x]$$

$$\text{Sinh}[2x]$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\left.\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\right)\Big/$$

$$\left(4\sqrt{2}\;(b-c-c\,\text{Cosh}[2x])^2\,\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{csch}[x]^4}\Bigg)+$$

$$\Bigg((b-c)(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\cosh[2x]+(a+b+c)\cosh[4x]}{(1+\cosh[2x])^2}}$$

$$\mathrm{csch}[x]$$

$$\left(\log\left[\sqrt{c}\,\tanh[x]^2\right]-\log\left[2c+b\tanh[x]^2+2\sqrt{c}\,\sqrt{c+\tanh[x]^2\left(b+a\tanh[x]^2\right)}\,\right]\right)$$

$$\mathrm{sech}[x]\sinh[2x]$$

$$\Bigg(-\frac{b\,\mathrm{csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$

$$\frac{c\,\mathrm{csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$

$$\frac{c\cosh[2x]\,\mathrm{csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)\Bigg)\Big/$$

$$\Big(4\sqrt{2}\,\sqrt{c}\,(b-c-c\cosh[2x])\sqrt{3a-b+3c+(-4a+4c)\cosh[2x]+(a+b+c)\cosh[4x]}$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{csch}[x]^4}\Bigg)+$$

$$\Bigg(c\cosh[2x](3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$

$$\Big(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2b-4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$

$$c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Bigg)}$$

$$\coth[x]\,\mathrm{csch}[x]^2\Bigg(-\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$
$$\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+\right.\right.$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\Big[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$
$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$
$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\Big]\right)$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$
$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$\left.(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])\right)\Big/$$

$$\left(8\,(b-c-c\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.$$
$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\Big|\Big)$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg)-\Bigg(c^2\,\text{Cosh}[2\,x]$$

$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\Big(2\,a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2\,c)\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/\right.$$

$$\Big(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)\Big]\Bigg)\sinh[2x]$$

$$\left(-\frac{b\,\mathrm{csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\,\mathrm{csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$

$$\left.\frac{c\cosh[2x]\,\mathrm{csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])\Bigg)\Bigg/$$

$$\Bigg(8\,(b-c-c\cosh[2x])^2\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$

$$\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+}$$
$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))}$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+}$$
$$c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Bigg)}$$

$$\Bigg(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+}$$
$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Bigg)$$

$$\sqrt{\Bigg(-1+\frac{1}{2(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+}$$
$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Bigg)}$$

$$\sqrt{\Bigg(1+\frac{1}{2(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+}$$
$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$
$$c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Bigg)}$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{csch}[x]^4}\Bigg)-$$

$$\left(c\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$
$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$
$$\left.2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.\right.$$
$$\left.\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$
$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$
$$\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right]+$$
$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$
$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$
$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$\left.\left.\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right]\right)\text{Sinh}[2x]$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$
$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4\,a\,\text{Sinh}[2\,x] + 4\,c\,\text{Sinh}[2\,x] + 2\,a\,\text{Sinh}[4\,x] + 2\,b\,\text{Sinh}[4\,x] + 2\,c\,\text{Sinh}[4\,x])\Bigg/$$

$$\Bigg(8\,(b - c - c\,\text{Cosh}[2\,x])\,\sqrt{3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]}$$

$$\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4\,a + 2\,b + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\left(2\,a - 2\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)$$

$$\sqrt{\left(-1 + \frac{1}{2\,(a+b+c)}\left(2\,a - 2\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{\left(1 + \frac{1}{2\,(a+b+c)}\left(2\,a - 2\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg) + \Bigg(c\,\text{Cosh}[2\,x]$$

$$(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])$$

$$\Bigg(2\,a\,\sqrt{3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]} +$$

$$2\,b\,\sqrt{3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]} +$$

$$2\,c\,\sqrt{3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]}\Bigg)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b - 4\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)\Big)$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$

$$\Big(2\sqrt{c}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$

$$\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]\Big)$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left.(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])\right)\Big/$$

$$\Big(32\,(b-c-c\,\text{Cosh}[2x])\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])^{3/2}$$

$$\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\Big(2a - 2c + \sqrt{2}\,\sqrt{(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)$$

$$\sqrt{\Big(-1 + \frac{1}{2\,(a+b+c)}\,\Big(2a - 2c + \sqrt{2}\,\sqrt{(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] +$$
$$b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] +$$
$$c\,\text{Cosh}[4x]) + c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)}$$

$$\sqrt{\Big(1 + \frac{1}{2\,(a+b+c)}\,\Big(2a - 2c + \sqrt{2}\,\sqrt{(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] +$$
$$b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] +$$
$$c\,\text{Cosh}[4x]) + c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)}$$

$$\sqrt{(3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Big) + \Big((b - c)\,(1 + \text{Cosh}[2x])$$

$$\sqrt{\frac{3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}{(1 + \text{Cosh}[2x])^2}}$$

$$\text{Csch}[x]$$

$$\Big(\text{Log}\big[\sqrt{c}\,\,\text{Tanh}[x]^2\big] - \text{Log}\big[2c + b\,\text{Tanh}[x]^2 + 2\sqrt{c}\,\sqrt{c + \text{Tanh}[x]^2\,\left(b + a\,\text{Tanh}[x]^2\right)}\,\,\big]\Big)$$

$$\text{Sech}[x]$$

$$\Big(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$

$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$

$$\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}}\Big)$$

$$(-8\,(a - c)\,\text{Sinh}[2x] + 4\,(a + b + c)\,\text{Sinh}[4x])\Big)\Big/$$

$$\Big(8\sqrt{2}\,\sqrt{c}\,\,(b - c - c\,\text{Cosh}[2x])\,\sqrt{3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}$$

$$\sqrt{(3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Big) -$$

$$\left(c\,\text{Cosh}[2x]\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$

$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.\right.$$

$$\left.c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+$$

$$\left.\left.\left.c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)\right)\right)}$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$

$$\left(2\sqrt{c}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+\right.\right.$$

$$b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+$$

$$\left.\left.c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)\right)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+\right.}$$

$$b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+$$

$$\left.\left.\left.c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)\right)\Big]\right)$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left(\left(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x]\right)\Big/\left(16\,(b-c-c\,\text{Cosh}[2x])\,\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.\right.$$
$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)$$
$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}\right.$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)$$
$$\left.\sqrt{(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)-\left((b-c)\,(1+\text{Cosh}[2x])\right.$$
$$(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$
$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$
$$\text{Csch}[x]$$
$$\left(\text{Log}\left[\sqrt{c}\,\text{Tanh}[x]^2\right]-\text{Log}\left[2c+b\,\text{Tanh}[x]^2+2\sqrt{c}\,\sqrt{c+\text{Tanh}[x]^2\left(b+a\,\text{Tanh}[x]^2\right)}\,\right]\right)$$
$$\text{Sech}[x]$$
$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$\left.(2(-4a+4c)\,\text{Sinh}[2x]+4(a+b+c)\,\text{Sinh}[4x])\right)\Big/$$

$$\left(16\sqrt{2}\,\sqrt{c}\,(b-c-c\,\text{Cosh}[2x])\,(3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}\right.$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)+$$

$$\left(c\,\text{Cosh}[2x]\,(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$

$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$

$$\left(2\sqrt{c}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$

$$\left.\left.b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$

$$\left.\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$

$$\left.\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+}\right.$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]\Bigg)$$

$$\Bigg(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\Bigg)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$(a\,(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+$$

$$b\,(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+$$

$$c\,(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x]))\Bigg)\Big/\Bigg(64\sqrt{2}\;(a+b+c)$$

$$(b-c-c\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\Big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Bigg)}$$

$$\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)$$

$$\sqrt{\Bigg(-1+\frac{1}{2\,(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+$$

$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Bigg)}$$

$$\Bigg(1+\frac{1}{2\,(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Bigg)^{3/2}$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg)+\Bigg(c\cosh[2x]$$

$$\frac{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])}{\left(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\right.}$$

$$2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$\left.2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.}$$

$$\left.\left.\left.c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$

$$\left.\left.c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)$$

$$\mathrm{Csch}[x]^2\left(-\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\mathrm{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)\Big/\right.$$

$$\left(2\sqrt{c}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.}$$

$$\left.\left.b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$

$$\left.\left.c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}\mathrm{Log}\left[2\left(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.}$$

$$\left.b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.$$

$$\left.\left.\left.c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right]\Bigg)$$

$$\left(-\frac{b\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$

$$\left.\frac{c\cosh[2x]\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$\Bigg(\left(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x]\right)\left(a\left(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x]\right)+b\left(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x]\right)+c\left(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x]\right)\right)\Bigg)\Bigg/\Bigg(64\sqrt{2}\,(a+b+c)$$

$$(b-c-c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$

$$\Big(2\,b^2-8\,a\,c+a\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+b\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+c\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4\,a+2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+b\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+c\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)\right)}\right)\right)}$$

$$\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+b\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+c\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)\right)}\right)$$

$$\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+b\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+c\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)\right)}\right)\right)^{3/2}$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+b\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)+c\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]\right)\right)}\right)\right)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg)+\Bigg(c\,\text{Cosh}[2\,x]$$

$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\Big(2\,a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+2\,b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+2\,c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\left(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.\right.}$$

$$c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$
$$c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}} -\right.$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$
$$\Big(2\sqrt{c}\,\sqrt{2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big] +$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]} +$$
$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]} +$$
$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]} + \sqrt{a+b+c}$$
$$\sqrt{2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\Big)\Big]\Bigg)$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}} + \frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}} +\right.$$
$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$
$$(-4a\,\text{Sinh}[2x] + 4c\,\text{Sinh}[2x] + 2a\,\text{Sinh}[4x] + 2b\,\text{Sinh}[4x] + 2c\,\text{Sinh}[4x])$$
$$(a\,(-8a\,\text{Sinh}[2x] + 8c\,\text{Sinh}[2x] + 4a\,\text{Sinh}[4x] + 4b\,\text{Sinh}[4x] + 4c\,\text{Sinh}[4x]) +$$
$$b\,(-8a\,\text{Sinh}[2x] + 8c\,\text{Sinh}[2x] + 4a\,\text{Sinh}[4x] + 4b\,\text{Sinh}[4x] + 4c\,\text{Sinh}[4x]) +$$
$$c\,(-8a\,\text{Sinh}[2x] + 8c\,\text{Sinh}[2x] + 4a\,\text{Sinh}[4x] + 4b\,\text{Sinh}[4x] + 4c\,\text{Sinh}[4x]))\Big)\Big/$$

$$\Big(16\sqrt{2}\,(b - c - c\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$
$$\Big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]) +$$
$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right)}$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)^2$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right)}$$

$$\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Bigg)-\Bigg(c\,\text{Cosh}[2x]$$

$$\frac{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])}{\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)}$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\text{ArcTanh}\left[\left((b+2c)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\left(2\sqrt{c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right]$$

$$\left(-\frac{b\,\text{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\,\text{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$
$$\left.\frac{c\cosh[2x]\,\text{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$
$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$
$$\left(a(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+\right.$$
$$b(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$
$$\left.c(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])\right)\Big/\left(32\sqrt{2}\,(a+b+c)\right.$$
$$(b-c-c\cosh[2x])\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$
$$\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}\right.$$
$$\left.\left.\left.\left.c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.\right.$$
$$\left.\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}\right.$$
$$\left.\left.\left.\left.c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.\right.$$
$$\left.\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}\right.$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}\right.$$

$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Big)$$

$$\sqrt{\Big(1+\frac{1}{2\,(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big)}$$

$$\sqrt{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Big)+\Bigg(c\cosh[2x]$$

$$\frac{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])}{\Big(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)}$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(-2b-4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big)}$$

$$\mathrm{Csch}[x]^2\Bigg(-\frac{\mathrm{ArcTanh}\Big[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{2\sqrt{c}}-$$

$$\frac{1}{2\sqrt{c}}\mathrm{ArcTanh}\Big[\Big((b+2c)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/\Big(2\sqrt{c}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\mathrm{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Big]\Bigg)$$

$$\Bigg(-\frac{b\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$

$$\frac{c\cosh[2x]\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)$$

$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$(a(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$b(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$c(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]))\Bigg)\Big/\Bigg(32\sqrt{2}\,(a+b+c)$$

$$(b-c-c\cosh[2x])\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$

$$\Big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)$$

$$\Bigg(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$

$$c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Bigg)^{3/2}$$

$$\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)$$

$$\sqrt{\Bigg(-1+\frac{1}{2(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+$$

$$b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$

$$c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Bigg)}$$

$$\sqrt{\Bigg(1+\frac{1}{2(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+$$

$$b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$

$$c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Bigg)}$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg)+\Bigg(c\cosh[2x]$$

$$(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$
$$\Big(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2b-4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Bigg)}$$

$$\mathrm{Csch}[x]^2\Bigg(-\frac{\mathrm{ArcTanh}\Big[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{c}}\Big]}{2\sqrt{c}}-$$
$$\frac{1}{2\sqrt{c}}\mathrm{ArcTanh}\Big[\Big((b+2c)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$
$$\Big(2\sqrt{c}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]+$$
$$\frac{1}{\sqrt{a+b+c}}\mathrm{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]\Bigg)$$

$$\Bigg(-\frac{b\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$
$$\frac{c\cosh[2x]\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)$$

$$\Big(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x]\Big)$$
$$\Big(a\,\big(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x]\big)+$$
$$b\,\big(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x]\big)+$$
$$c\,\big(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x]\big)\Big)\Bigg/$$

$$\Bigg(32\,(b-c-c\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$
$$\Big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\Big)^{3/2}$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\,\Big(4\,a+2\,b+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Bigg)}$$
$$\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)$$
$$\sqrt{\Bigg(-1+\frac{1}{2\,(a+b+c)}\,\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Bigg)}$$
$$\sqrt{\Bigg(1+\frac{1}{2\,(a+b+c)}\,\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Bigg)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg)-\Bigg(c\,\text{Cosh}[2\,x]$$
$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\,\Big(-2\,b-4\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Bigg)}$$

$$\text{Csch}[x]^2 \left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}} - \right.$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2\,c)\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/ \right.$$

$$\left(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big] +$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\left[2\left(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.\right.$$

$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right]\Bigg)$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\right.$$

$$\left.\frac{c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$

$$(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$

$$\left(\frac{a\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+\right.$$

$$\frac{b\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\left.\frac{c\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}\right)\Big/$$

$$\left(16\,(b-c-c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

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    b (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x]) +
    c (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x]))

Sqrt[(1/(a + b + c)) (4 a + 2 b + Sqrt[2] Sqrt[2 b^2 - 8 a c + a (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] +
                c Cosh[4 x]) + b (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x]) +
            c (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x])]))]

(2 a - 2 c + Sqrt[2] Sqrt[2 b^2 - 8 a c + a (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x]) +
        b (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x]) +
        c (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x])])

Sqrt[(-1 + 1/(2 (a + b + c))) (2 a - 2 c + Sqrt[2] Sqrt[2 b^2 - 8 a c + a (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] +
                b Cosh[4 x] + c Cosh[4 x]) + b (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] +
                c Cosh[4 x]) + c (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x])])]

Sqrt[(1 + 1/(2 (a + b + c))) (2 a - 2 c + Sqrt[2] Sqrt[2 b^2 - 8 a c + a (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] +
                b Cosh[4 x] + c Cosh[4 x]) + b (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] +
                c Cosh[4 x]) + c (3 a - b + 3 c - 4 a Cosh[2 x] + 4 c Cosh[2 x] + a Cosh[4 x] + b Cosh[4 x] + c Cosh[4 x])])]

Sqrt[(3 a - b + 3 c - 4 (a - c) Cosh[2 x] + (a + b + c) Cosh[4 x]) Csch[x]^4] - ((b - c) (1 + Cosh[2 x])
(3 a - b + 3 c - 4 (a - c) Cosh[2 x] + (a + b + c) Cosh[4 x]))/
Sqrt[(3 a - b + 3 c + (-4 a + 4 c) Cosh[2 x] + (a + b + c) Cosh[4 x])/(1 + Cosh[2 x])^2]
Csch[x]
(Log[Sqrt[c] Tanh[x]^2] - Log[2 c + b Tanh[x]^2 + 2 Sqrt[c] Sqrt[c + Tanh[x]^2 (b + a Tanh[x]^2)]])
Sech[x]
(-(b Csch[x]^2 Sinh[2 x])/Sqrt[3 a - b + 3 c - 4 (a - c) Cosh[2 x] + (a + b + c) Cosh[4 x]] +
  (c Csch[x]^2 Sinh[2 x])/Sqrt[3 a - b + 3 c - 4 (a - c) Cosh[2 x] + (a + b + c) Cosh[4 x]] +
  (c Cosh[2 x] Csch[x]^2 Sinh[2 x])/Sqrt[3 a - b + 3 c - 4 (a - c) Cosh[2 x] + (a + b + c) Cosh[4 x]])
(-4 (3 a - b + 3 c - 4 (a - c) Cosh[2 x] + (a + b + c) Cosh[4 x]) Coth[x] Csch[x]^4 +
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$$\text{Csch}[x]^4\,(-8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])\Big)\Big/$$

$$\Big(16\sqrt{2}\,\sqrt{c}\,(b-c-c\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}$$

$$\left((3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4\right)^{3/2}\Big)+$$

$$\Bigg(c\,\text{Cosh}[2\,x]\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\Big(2\,a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$2\,c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2\,b-4\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+}}$$

$$c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Bigg)$$

$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$

$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\Big[\Big((b+2\,c)\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)\Big/$$

$$\Big(2\sqrt{c}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+}$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$

$$c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+}$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Big]\right)$$

$$\left(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left(-4(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Coth}[x]\,\text{Csch}[x]^4+\right.$$

$$\left.\text{Csch}[x]^4\,(-8(a-c)\,\text{Sinh}[2x]+4(a+b+c)\,\text{Sinh}[4x])\right)\Big/$$

$$\left(32(b-c-c\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.$$

$$\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+}$$

$$b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$

$$b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$

$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$

$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}$$

$$\left((3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4\right)^{3/2}\Bigg)+\Bigg((b-c)(1+\text{Cosh}[2x])$$

$$(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\sqrt{\frac{3\,a - b + 3\,c + (-4\,a + 4\,c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}{(1 + \text{Cosh}[2\,x])^2}}$$

$$\text{Csch}[x]$$

$$\left(\text{Log}\left[\sqrt{c}\ \text{Tanh}[x]^2\right] - \text{Log}\left[2\,c + b\,\text{Tanh}[x]^2 + 2\,\sqrt{c}\ \sqrt{c + \text{Tanh}[x]^2\,\left(b + a\,\text{Tanh}[x]^2\right)}\ \right]\right)$$

$$\text{Sech}[x]$$

$$\left(-\frac{2\,b\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} + \frac{2\,c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} + \frac{2\,c\,\text{Cosh}[2\,x]^2\,\text{Csch}[x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} + \frac{2\,b\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} - \frac{2\,c\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} - \frac{2\,c\,\text{Cosh}[2\,x]\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} + \frac{2\,c\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} + \frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]\,(-8\,(a - c)\,\text{Sinh}[2\,x] + 4\,(a + b + c)\,\text{Sinh}[4\,x])}{2\,(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])^{3/2}} - \frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]\,(-8\,(a - c)\,\text{Sinh}[2\,x] + 4\,(a + b + c)\,\text{Sinh}[4\,x])}{2\,(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])^{3/2}} - \frac{c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2\,\text{Sinh}[2\,x]\,(-8\,(a - c)\,\text{Sinh}[2\,x] + 4\,(a + b + c)\,\text{Sinh}[4\,x])}{2\,(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])^{3/2}}\right) \Big/$$

$$\left(8\,\sqrt{2}\ \sqrt{c}\ (b - c - c\,\text{Cosh}[2\,x])\,\sqrt{3\,a - b + 3\,c + (-4\,a + 4\,c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}\ \sqrt{(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\right) -$$

$$\left(c\,\text{Cosh}[2\,x]\,(3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x])\right.$$

$$\left(2\,a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.$$
$$2\,b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$
$$\left.2\,c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)}$$
$$\text{Csch}[x]^2\left(-\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{c}}\right]}{2\sqrt{c}}-\right.$$
$$\frac{1}{2\sqrt{c}}\,\text{ArcTanh}\left[\left((b+2\,c)\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/\right.$$
$$\left(2\sqrt{c}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$\left.\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right]+$$
$$\frac{1}{\sqrt{a+b+c}}\,\text{Log}\left[2\left(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.\right.$$
$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$
$$c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$\left.\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right]\Bigg)$$
$$(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$
$$\left(-\frac{2\,b\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\right.$$
$$\frac{2\,c\,\text{Cosh}[2\,x]\,\text{Csch}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$
$$\left.\frac{2\,c\,\text{Cosh}[2\,x]^2\,\text{Csch}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\right.$$

$$\frac{2\,b\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\frac{2\,c\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\frac{2\,c\,\text{Cosh}[2x]\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{2\,c\,\text{Csch}[x]^2\,\text{Sinh}[2x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]\,(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])}{2\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}}-$$

$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]\,(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])}{2\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}}-$$

$$\left.\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]\,(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])}{2\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}}\right)\Bigg/$$

$$\left(16\,(b-c-c\,\text{Cosh}[2x])\sqrt{3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$\left.c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x])+b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x])+b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$

$$c\,\text{Cosh}[4x]) + c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\Big)\Big)$$

$$\sqrt{(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Big) + \Bigg((b - c)\,(1 + \text{Cosh}[2x])$$

$$(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])$$
$$\text{Csch}[x]$$
$$\Big(\text{Log}\big[\sqrt{c}\ \text{Tanh}[x]^2\big] - \text{Log}\big[2c + b\,\text{Tanh}[x]^2 + 2\sqrt{c}\ \sqrt{c + \text{Tanh}[x]^2\,(b + a\,\text{Tanh}[x]^2)}\ \big]\Big)$$
$$\text{Sech}[x]$$
$$\Bigg(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$
$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$
$$\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}}\Bigg)$$
$$\Bigg(-\frac{4\,(3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Sinh}[2x]}{(1 + \text{Cosh}[2x])^3} +$$
$$\frac{2\,(-4a + 4c)\,\text{Sinh}[2x] + 4\,(a + b + c)\,\text{Sinh}[4x]}{(1 + \text{Cosh}[2x])^2}\Bigg)\Bigg/$$
$$\Bigg(16\sqrt{2}\ \sqrt{c}\ (b - c - c\,\text{Cosh}[2x])\sqrt{3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}$$
$$\sqrt{\frac{3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}{(1 + \text{Cosh}[2x])^2}}$$
$$\sqrt{(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Bigg) -$$
$$\Bigg(c\,\text{Cosh}[2x]\,(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])$$
$$\Big(2a\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$
$$2b\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$
$$2c\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\Big)$$
$$\sqrt{\Bigg(\frac{1}{a + b + c}\Big(-2b - 4c + \sqrt{2}\ \sqrt{\big(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] +$$
$$c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Big)\,\mathrm{Csch}[x]^2$$

$$\left(-\frac{b\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\frac{c\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$

$$\left.\frac{c\cosh[2x]\,\mathrm{Csch}[x]^2\sinh[2x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$\left(-(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])\Big/\right.$$

$$\left(8\sqrt{2}\;c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$

$$\left.\left(1-\frac{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}{8c}\right)\right)-$$

$$\left((b+2c)\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]))\Big/\right.$$

$$\left(4\sqrt{c}\;\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$

$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.}$$

$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)-\right.$$

$$\left((b+2c)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$

$$(a\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$b\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$\left.c\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]))\right)\Big/$$

$$\left(4\sqrt{c}\;\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$

$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))^{3/2}\right)\right)\Big/$$

$$\left(2\sqrt{c}\;\left(1-\left((b+2c)^2\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\Big/\right.\right.$$

$$\left(4c\,\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$

$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$\left.\left.\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)\right)+$$

$$\left(\frac{a\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])}{2\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}+\right.$$

$$\frac{b\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])}{2\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}+$$

$$\frac{c\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{2\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\left(\sqrt{a+b+c}\,\left(a\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])+\right.\right.$$
$$b\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])+$$
$$\left.c\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])\right)\Big/$$
$$\left(2\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\Big/$$

$$\left(\sqrt{a+b+c}\,\left(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.\right.$$
$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$
$$c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)\Big/$$

$$\left(16\,(b-c-c\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4\,a+2\,b+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$

$$\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}\right.$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\Big)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$

$$c\,\text{Cosh}[4x]) + c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\Big)\Big)$$

$$\sqrt{(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Big) + \Bigg((b - c)\,(1 + \text{Cosh}[2x])$$

$$(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])$$

$$\sqrt{\frac{3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}{(1 + \text{Cosh}[2x])^2}}$$

$$\text{Csch}[x]$$

$$\text{Sech}[x]$$

$$\Bigg(-\frac{b\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$

$$\frac{c\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} +$$

$$\frac{c\,\text{Cosh}[2x]\,\text{Csch}[x]^2\,\text{Sinh}[2x]}{\sqrt{3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}}\Bigg)$$

$$\Bigg(2\,\text{Csch}[x]\,\text{Sech}[x] - \frac{2b\,\text{Sech}[x]^2\,\text{Tanh}[x] + \frac{\sqrt{c}\,\left(2a\,\text{Sech}[x]^2\,\text{Tanh}[x]^3 + 2\,\text{Sech}[x]^2\,\text{Tanh}[x]\,\left(b + a\,\text{Tanh}[x]^2\right)\right)}{\sqrt{c + \text{Tanh}[x]^2\,\left(b + a\,\text{Tanh}[x]^2\right)}}}{2c + b\,\text{Tanh}[x]^2 + 2\sqrt{c}\,\sqrt{c + \text{Tanh}[x]^2\,\left(b + a\,\text{Tanh}[x]^2\right)}}\Bigg)\Bigg)\Bigg/$$

$$\Bigg(8\sqrt{2}\,\sqrt{c}\,(b - c - c\,\text{Cosh}[2x])\,\sqrt{3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}$$

$$\sqrt{(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Big)\Bigg)$$

Timed out after 60 seconds:

$$\left\{\frac{\text{Coth}[x]^3}{\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}, x, 7, 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{b + 2c\,\text{Coth}[x]^2}{2\sqrt{c}\,\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}\right]}{2\sqrt{c}} + \frac{\text{ArcTanh}\left[\frac{2a + b + (b + 2c)\,\text{Coth}[x]^2}{2\sqrt{a + b + c}\,\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a + b + c}}$$

???

Timed out after 60 seconds:

$$\left\{\frac{\text{Coth}[x]}{\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}, x, 4, 0\right\}$$

$$\frac{\text{ArcTanh}\left[\frac{2a + b + (b + 2c)\,\text{Coth}[x]^2}{2\sqrt{a + b + c}\,\sqrt{a + b\,\text{Coth}[x]^2 + c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a + b + c}}$$

???

Unable to integrate:

$$\left\{\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}},\ x,\ 6,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{2a+b\,\text{Coth}[x]^2}{2\sqrt{a}\ \sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a}}+\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Coth}[x]^2}{2\sqrt{a+b+c}\ \sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a+b+c}}$$

$$\int\frac{\text{Tanh}[x]}{\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\,\text{d}x$$

Incorrect antiderivative:

$$\left\{\frac{\text{Tanh}[x]^3}{\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}},\ x,\ 9,\ 0\right\}$$

$$-\frac{\text{ArcTanh}\left[\frac{2a+b\,\text{Coth}[x]^2}{2\sqrt{a}\ \sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a}}+\frac{b\,\text{ArcTanh}\left[\frac{2a+b\,\text{Coth}[x]^2}{2\sqrt{a}\ \sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{4\,a^{3/2}}+$$

$$\frac{\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Coth}[x]^2}{2\sqrt{a+b+c}\ \sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{2\sqrt{a+b+c}}-\frac{\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}\ \text{Tanh}[x]^2}{2a}$$

$$\sqrt{\frac{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}{3-4\,\text{Cosh}[2x]+\text{Cosh}[4x]}}\left(-\frac{1}{2a}+\frac{\text{Sech}[x]^2}{2a}\right)+$$

$$\left(\left(\left(\left(-a+b\right)\left(1+\text{Cosh}[2x]\right)\left(3a-b+3c-4\left(a-c\right)\text{Cosh}[2x]+\left(a+b+c\right)\text{Cosh}[4x]\right)\right.\right.\right.$$

$$\sqrt{\frac{3a-b+3c+\left(-4a+4c\right)\text{Cosh}[2x]+\left(a+b+c\right)\text{Cosh}[4x]}{\left(1+\text{Cosh}[2x]\right)^2}}\ \text{Coth}[x]\,\text{Csch}[x]^2\,\text{Log}\Big[$$

$$b+2a\,\text{Tanh}[x]^2+2\sqrt{a}\ \sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\ \Big]\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\left(a-c\right)\text{Cosh}[2x]+\left(a+b+c\right)\text{Cosh}[4x]}}-\right.$$

$$\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\left(a-c\right)\text{Cosh}[2x]+\left(a+b+c\right)\text{Cosh}[4x]}}+$$

$$\left.\left.\left.\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\left(a-c\right)\text{Cosh}[2x]+\left(a+b+c\right)\text{Cosh}[4x]}}\right)\right)\Big/$$

$$\left(8\sqrt{2}\ \sqrt{a}\ (-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$
$$\left.\sqrt{(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)+$$

$$\left(a\,\text{Cosh}[2x]\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$
$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$
$$\left.2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\ \sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)}$$

$$\text{Csch}[x]^2\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\ \sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\left[\left((2a+b)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$
$$\left(2\sqrt{a}\ \sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$
$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$
$$c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$
$$\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+}$$
$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$
$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$
$$\left.\left.c\,\text{Cosh}[4x]))\right)\right]\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\right.$$

$$\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\Bigg)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])\Bigg)\Bigg/$$

$$\Bigg(32(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+
b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+
c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2b-4c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+
c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+
c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}\Big)\Bigg)}$$

$$\Bigg(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+
c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c
(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}\Bigg)\sqrt{\Bigg(-1+\frac{1}{2(a+b+c)}$$

$$\Big(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+
c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+
c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}\Big)\Bigg)}$$

$$\sqrt{\Bigg(1+\frac{1}{2(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+
a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+
b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+
c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))}\Big)\Bigg)}$$

$$\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Bigg)\Bigg)$$

$$\Bigg(-\Bigg(5\sqrt{\Bigg(\frac{3a}{3-4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-\frac{b}{3-4\,\text{Cosh}[2x]+\text{Cosh}[4x]}+\frac{3c}{3-4\,\text{Cosh}[2x]+\text{Cosh}[4x]}-$$

$$\left(\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)\text{Sech}[x]\,\text{Sinh}[3\,x]\Big)\Big/$$
$$(2\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))+$$
$$\left(b\sqrt{\left(\frac{3\,a}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{b}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{3\,c}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)}\,\text{Sech}[x]\,\text{Sinh}[3\,x]\Big)\Big/$$
$$(a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))+$$
$$\left(\sqrt{\left(\frac{3\,a}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{b}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{3\,c}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)}\,\text{Sech}[x]\,\text{Sinh}[5\,x]\Big)\Big/$$
$$(2\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))+$$
$$\left(5\sqrt{\left(\frac{3\,a}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{b}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{3\,c}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)}\,\text{Tanh}[x]\Big)\Big/$$
$$(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])-$$
$$\left(3\,b\sqrt{\left(\frac{3\,a}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{b}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{3\,c}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}-\frac{4\,a\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{4\,c\,\text{Cosh}[2\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{a\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{b\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}+\frac{c\,\text{Cosh}[4\,x]}{3-4\,\text{Cosh}[2\,x]+\text{Cosh}[4\,x]}\right)}\,\text{Tanh}[x]\Big)\Big/$$

$$(a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\Big)\Big/$$

$$\left(\left(a\,\text{Cosh}[2x]\,(-8a\,\text{Cosh}[2x]+8c\,\text{Cosh}[2x]+8a\,\text{Cosh}[4x]+8b\,\text{Cosh}[4x]+8c\,\text{Cosh}[4x])\right.\right.$$

$$(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$

$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.\right.$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)}$$

$$\text{Csch}[x]^2\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\left[\left((2a+b)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\right.$$

$$\left(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+c$$

$$\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$

$$\left.\left.\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right]\Bigg)$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\left(\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\right)\Big/$$

$$\left(32(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.$$

$$\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$\left.b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$
$$\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}\right.$$
$$\left.b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$
$$\left.c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\Big)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)}$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)-\left((-a+b)(1+\text{Cosh}[2x])\right.$$

$$(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\text{Coth}[x]^2$$

$$\text{Csch}[x]^2$$

$$\text{Log}\left[b+2a\,\text{Tanh}[x]^2+2\sqrt{a}\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\right]$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\right.$$

$$\left(\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\Big/$$

$$\left(4\sqrt{2}\,\sqrt{a}\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)-$$

$$\left((-a+b)(1+\text{Cosh}[2x])(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\text{Csch}[x]^4$$

$$\text{Log}\left[b+2a\,\text{Tanh}[x]^2+2\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\,\right]$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\right.$$

$$\left.\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\Big/$$

$$\left(8\sqrt{2}\,\sqrt{a}\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)-$$

$$\left(\sqrt{a}\,(-a+b)(1+\text{Cosh}[2x])(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\text{Coth}[x]\,\text{Csch}[x]^2$$

$$\text{Log}\left[b+2a\,\text{Tanh}[x]^2+2\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\,\right]$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\right.$$

$$\left(\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\text{Sinh}[2x]\Big/$$

$$\left(4\sqrt{2}\,(-a+b+a\,\text{Cosh}[2x])^2\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)+$$

$$\left((-a+b)(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}$$

$$\text{Coth}[x]\,\text{Csch}[x]^2$$

$$\text{Log}\left[b+2a\,\text{Tanh}[x]^2+2\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\,\right]$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\right.$$

$$\left.\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)\text{Sinh}[2x]\Big/$$

$$\left(4\sqrt{2}\,\sqrt{a}\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\right.$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)-$$

$$\left(a\,\text{Cosh}[2x]\,(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\right.$$

$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$\left.2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$

$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$

$$\left.\left.\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)$$

$$\text{Coth}[x]\,\text{Csch}[x]^2\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\left[\left((2\,a+b)\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)\Big/\right.$$

$$\left(2\sqrt{a}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\left[2\left(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.\right.$$

$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c$$

$$\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right]\Bigg)$$

$$\left(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\right.$$

$$\left.\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$

$$(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])\Bigg)\Big/$$

$$\left(16\,(-a+b+a\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$

$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$

$$\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$

$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)\right)$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right)}$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg)-\Bigg(a^2\cosh[2x]$$

$$\frac{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])}{\left(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right)}$$

$$\mathrm{Csch}[x]^2\left(\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\mathrm{ArcTanh}\left[\left((2a+b)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)\Big/\left(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)}\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}2\mathrm{Log}\left[2\left(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\right.\right.$$

$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$
$$\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right]\Bigg)$$

$$\left(\frac{a\coth[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{a\operatorname{csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$
$$\left.\frac{b\operatorname{csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$\sinh[2x]\left(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x]\right)\Bigg/$$

$$\left(16(-a+b+a\cosh[2x])^2\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right.$$
$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.\right.$$
$$\left.\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}\right.$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\cosh[4x]\right)+c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)$$
$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.b\cosh[4x]+c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$

$$c\,\text{Cosh}[4x]) + c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\sqrt{(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Big) +$$

$$\Bigg(a\,(3a - b + 3c - 4(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])$$

$$\Big(2a\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$

$$2b\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$

$$2c\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\Big)$$

$$\sqrt{\Big(\frac{1}{a + b + c}\Big(4a + 2b + \sqrt{2}\,\sqrt{(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] +$$

$$c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$

$$c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big)$$

$$\text{Csch}[x]^2\Bigg(\frac{\text{ArcTanh}\Big[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{a}}\Big]}{\sqrt{a}} -$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\Big[\Big((2a + b)\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\Big)\Big/$$

$$\Big(2\sqrt{a}\,\sqrt{(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$

$$b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$

$$c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big] +$$

$$\frac{1}{\sqrt{a + b + c}}\,2\,\text{Log}\Big[2\Big(a\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} +$$

$$b\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} + c$$

$$\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]} + \sqrt{a + b + c}$$

$$\sqrt{(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$

$$b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +$$

$$c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]))\Big)\Big]\Bigg)$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$\text{Sinh}[2x]\,(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])\Bigg/$$

$$\Bigg(16\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Bigg)-\Bigg(a\,\text{Cosh}[2x]$$

$$(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\Bigg(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$2\,b\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$2\,c\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;\Big)$$

$$\sqrt{\Big(\frac{1}{a+b+c}\Big(4\,a+2\,b+\sqrt{2}\;\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)\Big)}$$

$$\text{Csch}[x]^2\Bigg(\frac{\text{ArcTanh}\Big[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\;\sqrt{a}}\Big]}{\sqrt{a}}-$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\Big[\Big((2\,a+b)\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)\Big/$$
$$\Big(2\sqrt{a}\;\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+c$$
$$\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\sqrt{a+b+c}$$
$$\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)\Big]\Bigg)$$

$$\Bigg(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+$$
$$\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\Bigg)$$
$$(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$
$$\Big(\sqrt{(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}\Big)\Big/$$

$$\left(64\,(-a+b+a\cosh[2x])\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])^{3/2}\right.$$

$$\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+}$$
$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.$$
$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.}$$
$$\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.$$
$$\left.\left.c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.}$$
$$\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.$$
$$\left.\left.c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\right)\right)$$

$$\sqrt{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg)+\left((-a+b)\,(1+\cosh[2x])\right.$$

$$\sqrt{\frac{3a-b+3c+(-4a+4c)\cosh[2x]+(a+b+c)\cosh[4x]}{(1+\cosh[2x])^2}}$$

$$\coth[x]$$

$$\mathrm{Csch}[x]^2$$

$$\log\left[b+2a\tanh[x]^2+2\sqrt{a}\,\sqrt{c+b\tanh[x]^2+a\tanh[x]^4}\,\right]$$

$$\left(\frac{a\coth[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\right.$$
$$\frac{a\,\mathrm{Csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$
$$\left.\frac{b\,\mathrm{Csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$

$$\left(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x]\right)\Big/$$

$$\Bigg(8\sqrt{2}\,\sqrt{a}\,\left(-a+b+a\,\text{Cosh}[2x]\right)\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}$$

$$\sqrt{(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\Bigg)+$$

$$\Bigg(a\,\text{Cosh}[2x]\,\Big(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\Big)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.}$$

$$\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$

$$\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\Big)\Bigg)}$$

$$\text{Csch}[x]^2\Bigg(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\Big[\Big((2a+b)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\Big)\Big/$$

$$\Big(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$

$$\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$

$$\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+$$

$$b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+c$$

$$\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}$$

$$\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$

$$\left.b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$

$$\left.c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\Big)\Big]\Bigg)$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left((-8(a-c)\,\text{Sinh}[2x]+4(a+b+c)\,\text{Sinh}[4x])\right)\Big/$$

$$\left(32(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right.$$

$$\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)$$

$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right)}$$

$$\left.\sqrt{(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\right)-\left((-a+b)(1+\text{Cosh}[2x])\right.$$

$$(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])$$

$$\left.\sqrt{\frac{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}{(1+\text{Cosh}[2x])^2}}\right)$$

$$\text{Coth}[x]$$

$$\text{Csch}[x]^2$$

$$\text{Log}\left[b + 2\,a\,\text{Tanh}[x]^2 + 2\sqrt{a}\,\sqrt{c + b\,\text{Tanh}[x]^2 + a\,\text{Tanh}[x]^4}\,\right]$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} - \frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}} + \frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x]}}\right)$$

$$(2\,(-4a + 4c)\,\text{Sinh}[2x] + 4\,(a + b + c)\,\text{Sinh}[4x])\Bigg/$$

$$\left(16\sqrt{2}\,\sqrt{a}\,(-a + b + a\,\text{Cosh}[2x])\,(3a - b + 3c + (-4a + 4c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])^{3/2}\right.$$

$$\left.\sqrt{(3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4}\,\right) -$$

$$\left(a\,\text{Cosh}[2x]\,(3a - b + 3c - 4\,(a - c)\,\text{Cosh}[2x] + (a + b + c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\,+\right.$$

$$2b\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\,+$$

$$\left.2c\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\,\right)$$

$$\sqrt{\left(\frac{1}{a + b + c}\left(4a + 2b + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + c\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\text{Csch}[x]^2\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}} -\right.$$

$$\frac{1}{\sqrt{a}}\text{ArcTanh}\left[\left((2a + b)\sqrt{3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]}\,\right)\Big/\right.$$

$$\left(2\sqrt{a}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) + b\,(3a - b + 3c - 4a\,\text{Cosh}[2x] + 4c\,\text{Cosh}[2x] + a\,\text{Cosh}[4x] + b\,\text{Cosh}[4x] + c\,\text{Cosh}[4x]) +\right.\right.$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\log\Big[2\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$

$$\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$

$$\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Big]\Bigg)$$

$$\Bigg(\frac{a\coth[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{a\,\mathrm{csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$

$$\frac{b\,\mathrm{csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)$$

$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$

$$(a\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$b\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x])+$$

$$c\,(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]))\Bigg)\Bigg/\Bigg(128\sqrt{2}\;(a+b+c)$$

$$(-a+b+a\cosh[2x])\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$

$$\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2b-4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$

$$c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)\Bigg)}$$

$$\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)\Big)$$

$$\sqrt{\Bigg(-1+\frac{1}{2\,(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+$$

$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+$$

$$c\cosh[4x]) + c\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]))\Big)\Big)$$

$$\left(1 + \frac{1}{2\,(a+b+c)}\left(2a - 2c + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + b\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + c\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x])\right)}\right)\right)^{3/2}$$

$$\sqrt{(3a - b + 3c - 4\,(a - c)\cosh[2x] + (a + b + c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg) - \Bigg(a\cosh[2x]$$

$$\frac{(3a - b + 3c - 4\,(a - c)\cosh[2x] + (a + b + c)\cosh[4x])}{\left(2a\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]} + 2b\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]} + 2c\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]}\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a + 2b + \sqrt{2}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + b\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + c\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x])\right)}\right)\right)}$$

$$\mathrm{Csch}[x]^2\left(\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}} - \right.$$

$$\frac{1}{\sqrt{a}}\mathrm{ArcTanh}\left[\left((2a + b)\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]}\right)\Big/\left(2\sqrt{a}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + b\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + c\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x])\right)}\right)\right] +$$

$$\frac{1}{\sqrt{a+b+c}}2\,\mathrm{Log}\Big[2\,\Big(a\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]} + b\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]} + c\sqrt{3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]} + \sqrt{a+b+c}\,\sqrt{\left(2b^2 - 8ac + a\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + b\,(3a - b + 3c - 4a\cosh[2x] + 4c\cosh[2x] + a\cosh[4x] + b\cosh[4x] + c\cosh[4x]) + \right.\right.\right.$$

$$c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\Big)\Big]$$

$$\left(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} - \frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}} + \frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a - b + 3\,c - 4\,(a - c)\,\text{Cosh}[2\,x] + (a + b + c)\,\text{Cosh}[4\,x]}}\right)$$
$$(-4\,a\,\text{Sinh}[2\,x] + 4\,c\,\text{Sinh}[2\,x] + 2\,a\,\text{Sinh}[4\,x] + 2\,b\,\text{Sinh}[4\,x] + 2\,c\,\text{Sinh}[4\,x])$$
$$(a\,(-8\,a\,\text{Sinh}[2\,x] + 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]) +$$
$$b\,(-8\,a\,\text{Sinh}[2\,x] + 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]) +$$
$$c\,(-8\,a\,\text{Sinh}[2\,x] + 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]))\Big) \Big/ \Big(128\sqrt{2}\,(a + b + c)$$
$$(-a + b + a\,\text{Cosh}[2\,x])\sqrt{3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]}$$
$$\Big(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) +$$
$$c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\Big)$$
$$\sqrt{\left(\frac{1}{a + b + c}\left(-2\,b - 4\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$
$$\Big(2\,a - 2\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\Big)$$
$$\left(-1 + \frac{1}{2\,(a + b + c)}\left(2\,a - 2\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)\right)^{3/2}$$
$$\sqrt{\left(1 + \frac{1}{2\,(a + b + c)}\left(2\,a - 2\,c + \sqrt{2}\,\sqrt{\left(2\,b^2 - 8\,a\,c + a\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + b\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x]) + c\,(3\,a - b + 3\,c - 4\,a\,\text{Cosh}[2\,x] + 4\,c\,\text{Cosh}[2\,x] + a\,\text{Cosh}[4\,x] + b\,\text{Cosh}[4\,x] + c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Bigg)-\Bigg(a\cosh[2x]$$

$$(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$
$$\Big(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$
$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Bigg)}$$

$$\mathrm{Csch}[x]^2\Bigg(\frac{\mathrm{ArcTanh}\Big[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{a}}\Big]}{\sqrt{a}}-$$
$$\frac{1}{\sqrt{a}}\mathrm{ArcTanh}\Big[\Big((2a+b)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$
$$\Big(2\sqrt{a}\,\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]+$$
$$\frac{1}{\sqrt{a+b+c}}2\mathrm{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$
$$\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\big(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\big)}\Big)\Big]\Bigg)$$

$$\Bigg(\frac{a\coth[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{a\,\mathrm{Csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+$$
$$\frac{b\,\mathrm{Csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\Bigg)$$

$$\Big((-4\,a\,\text{Sinh}[2\,x] + 4\,c\,\text{Sinh}[2\,x] + 2\,a\,\text{Sinh}[4\,x] + 2\,b\,\text{Sinh}[4\,x] + 2\,c\,\text{Sinh}[4\,x])$$
$$(a\,(-8\,a\,\text{Sinh}[2\,x] + 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]) +$$
$$b\,(-8\,a\,\text{Sinh}[2\,x] + 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]) +$$
$$c\,(-8\,a\,\text{Sinh}[2\,x] + 8\,c\,\text{Sinh}[2\,x] + 4\,a\,\text{Sinh}[4\,x] + 4\,b\,\text{Sinh}[4\,x] + 4\,c\,\text{Sinh}[4\,x]))\Big) \Big/$$

$$\Big(32\sqrt{2}\,(-a+b+a\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$
$$\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]) +$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]) +$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)$$
$$\sqrt{\Big(\frac{1}{a+b+c}\Big(-2\,b-4\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)\Big)}$$
$$\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c$$
$$(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)^2$$
$$\sqrt{\Big(-1+\frac{1}{2\,(a+b+c)}\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)\Big)}$$
$$\sqrt{\Big(1+\frac{1}{2\,(a+b+c)}\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\big)\Big)\Big)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Big) - \Big(a\,\text{Cosh}[2\,x]$$
$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$
$$\Big(2\,a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]} +$$
$$2\,b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]} +$$
$$2\,c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right)}$$

$$\text{Csch}[x]^2\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\text{ArcTanh}\left[\left((2a+b)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\left(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}2\,\text{Log}\left[2\left(a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+\sqrt{a+b+c}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right]\Bigg)$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left(a\left(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x]\right)+b\left(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x]\right)+c\left(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x]\right)\right)\Big/\left(64\sqrt{2}\,(a+b+c)\right.$$

$$(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+\right.$$

$$c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)$$

$$\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)^{3/2}$$

$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)$$

$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)}$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\right)\right)}$$

$$\sqrt{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\operatorname{Csch}[x]^4}\Big)+\Bigg(a\cosh[2x]$$

$$(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$
$$\Big(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$

$$\operatorname{Csch}[x]^2\Bigg(\frac{\operatorname{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-$$

$$\frac{1}{\sqrt{a}}\operatorname{ArcTanh}\Big[\Big((2a+b)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$
$$\Big(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.}$$
$$\left.b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.$$
$$\left.c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}2\operatorname{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$

$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$
$$\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right]$$

$$\left(\frac{a\coth[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-\frac{a\operatorname{csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}+\right.$$
$$\left.\frac{b\operatorname{csch}[2x]\sinh[x]^2}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}\right)$$
$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$
$$\left(a\left(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)+\right.$$
$$b\left(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)+$$
$$\left.c\left(-8a\sinh[2x]+8c\sinh[2x]+4a\sinh[4x]+4b\sinh[4x]+4c\sinh[4x]\right)\right)\Big/\left(64\sqrt{2}\,(a+b+c)\right.$$
$$(-a+b+a\cosh[2x])\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}$$
$$\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.\right.$$
$$\left.\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)}$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2b-4c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+\right.\right.\right.\right.}$$
$$\left.\left.\left.\left.c\cosh[4x]\right)+b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.\right.\right.$$
$$\left.\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)\right)}$$
$$\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+\right.}\right.$$
$$b\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)+$$
$$\left.\left.c\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]\right)\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+\right.\right.\right.\right.}$$

$$b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]))\Big)\Big)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2a-2c+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)}\right)\right)}$$

$$\sqrt{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\mathrm{Csch}[x]^4}\Big)-\Bigg(a\cosh[2x]$$

$$\frac{(3a-b+3c-4\,(a-c)\cosh[2x]+(a+b+c)\cosh[4x])}{\left(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)}$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)}\right)\right)}$$

$$\mathrm{Csch}[x]^2\left(\frac{\mathrm{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\mathrm{ArcTanh}\left[\left((2a+b)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\right)\Big/\left(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\right)}\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}2\,\mathrm{Log}\Big[2\,\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}\,\sqrt{\left(2b^2-8ac+a\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b\,(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+\right.}\right.$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)\Big]\Bigg)$$

$$\Bigg(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\Bigg)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$(a\,(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+$$

$$b\,(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+$$

$$c\,(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x]))\Bigg)\Big/$$

$$\Bigg(64\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\Big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\Big)^{3/2}$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(-2b-4c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Bigg)}$$

$$\Bigg(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+$$

$$c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Bigg)$$

$$\sqrt{\Bigg(-1+\frac{1}{2\,(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+$$

$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Bigg)}$$

$$\sqrt{\Bigg(1+\frac{1}{2\,(a+b+c)}\Big(2a-2c+\sqrt{2}\,\sqrt{\big(2b^2-8ac+a\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+$$

$$b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+$$

$$c\,\text{Cosh}[4x])+c\,(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\big)\Big)\Bigg)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg)+\Bigg(a\,\text{Cosh}[2\,x]$$

$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\sqrt{\Bigg(\frac{1}{a+b+c}\Big(4\,a+2\,b+\sqrt{2}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Bigg)}$$

$$\text{Csch}[x]^2\Bigg(\frac{\text{ArcTanh}\Big[\frac{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}{2\sqrt{2}\,\sqrt{a}}\Big]}{\sqrt{a}}-$$

$$\frac{1}{\sqrt{a}}\,\text{ArcTanh}\Big[\Big((2\,a+b)\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\Big)\Big/\Big(2\sqrt{a}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Big]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\Big(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}\,\sqrt{\big(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\big)\Big)\Big]\Bigg)$$

$$\Bigg(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\Bigg)$$

$$(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$

$$\Bigg(\frac{a\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\frac{b\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\frac{c\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}\Bigg)\Bigg/$$

$$\Bigg(32\,(-a+b+a\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)}$$
$$\Bigg(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$\left.b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)}$$
$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]))\right)\right)\right)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg)-\Bigg((-a+b)\,(1+\text{Cosh}[2\,x])$$

$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\sqrt{\frac{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}{(1+\text{Cosh}[2\,x])^2}}$$

$$\text{Coth}[x]$$

$$\text{Csch}[x]^2$$

$$\text{Log}\left[b+2\,a\,\text{Tanh}[x]^2+2\,\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\,\right]$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$\left(-4(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Coth}[x]\,\text{Csch}[x]^4+\text{Csch}[x]^4(-8(a-c)\,\text{Sinh}[2x]+4(a+b+c)\,\text{Sinh}[4x])\right)\Big/$$

$$\left(16\sqrt{2}\,\sqrt{a}\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c+(-4a+4c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}\,\left((3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\,\text{Csch}[x]^4\right)^{3/2}\right)-$$

$$\left(a\,\text{Cosh}[2x]\,(3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])\right.$$

$$\left(2a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+2b\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}+2c\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)\right)\right)}$$

$$\text{Csch}[x]^2\left(\frac{\text{ArcTanh}\left[\frac{\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}{2\sqrt{2}\,\sqrt{a}}\right]}{\sqrt{a}}-\right.$$

$$\frac{1}{\sqrt{a}}\text{ArcTanh}\left[\left((2a+b)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\right)\Big/\left(2\sqrt{a}\,\sqrt{\left(2b^2-8ac+a(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+c(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}\right)\right]+$$

$$\frac{1}{\sqrt{a+b+c}}\,2\,\text{Log}\Big[2\,\Big(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+$$
$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+c$$
$$\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\;+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\Big)\Big]$$

$$\left(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\right.$$
$$\left.\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$
$$(-4\,a\,\text{Sinh}[2\,x]+4\,c\,\text{Sinh}[2\,x]+2\,a\,\text{Sinh}[4\,x]+2\,b\,\text{Sinh}[4\,x]+2\,c\,\text{Sinh}[4\,x])$$
$$\Big(-4\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Coth}[x]\,\text{Csch}[x]^4+$$
$$\text{Csch}[x]^4\,(-8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])\Big)\Big/$$

$$\Big(64\,(-a+b+a\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$
$$\Big(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\Big)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\left((3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4\right)^{3/2}\right)+\left((-a+b)\,(1+\text{Cosh}[2\,x])\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\sqrt{\frac{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}{(1+\text{Cosh}[2\,x])^2}}\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Log}\left[b+2\,a\,\text{Tanh}[x]^2+2\,\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\,\right]\left(\frac{2\,a\,\text{Cosh}[x]\,\text{Coth}[2\,x]\,\text{Sinh}[x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{2\,a\,\text{Cosh}[x]\,\text{Csch}[2\,x]\,\text{Sinh}[x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{2\,b\,\text{Cosh}[x]\,\text{Csch}[2\,x]\,\text{Sinh}[x]}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{2\,a\,\text{Coth}[2\,x]\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{2\,b\,\text{Coth}[2\,x]\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{2\,a\,\text{Csch}[2\,x]^2\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2\,(-8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}+\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2\,(-8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}-\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2\,(-8\,(a-c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x])}{2\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])^{3/2}}\right)\Big/\left(8\,\sqrt{2}\,\sqrt{a}\,(-a+b+a\,\text{Cosh}[2\,x])\,\sqrt{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}\right)$$

$$\sqrt{(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])\,\operatorname{csch}[x]^4}\Bigg)+$$

$$\Bigg(a\cosh[2x]\,(3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x])$$

$$\Big(2a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$2c\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)$$
$$\sqrt{\Big(\frac{1}{a+b+c}\Big(4a+2b+\sqrt{2}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])\Big)\Big)\Big)}$$

$$\operatorname{csch}[x]^2\Bigg(\frac{\operatorname{ArcTanh}\Big[\frac{\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}}{2\sqrt{2}\,\sqrt{a}}\Big]}{\sqrt{a}}-$$

$$\frac{1}{\sqrt{a}}\operatorname{ArcTanh}\Big[\Big((2a+b)\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}\Big)\Big/$$
$$\Big(2\sqrt{a}\,\sqrt{(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])}\Big)\Big]+$$
$$\frac{1}{\sqrt{a+b+c}}2\operatorname{Log}\Big[2\Big(a\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+$$
$$b\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+c$$
$$\sqrt{3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x]}+\sqrt{a+b+c}$$
$$\sqrt{(2b^2-8ac+a(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+b(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])+$$
$$c(3a-b+3c-4a\cosh[2x]+4c\cosh[2x]+a\cosh[4x]+b\cosh[4x]+c\cosh[4x])}\Big)\Big]\Bigg)$$

$$(-4a\sinh[2x]+4c\sinh[2x]+2a\sinh[4x]+2b\sinh[4x]+2c\sinh[4x])$$
$$\Bigg(\frac{2a\cosh[x]\coth[2x]\sinh[x]}{\sqrt{3a-b+3c-4(a-c)\cosh[2x]+(a+b+c)\cosh[4x]}}-$$

$$\frac{2\,a\,\text{Cosh}[x]\,\text{Csch}[2x]\,\text{Sinh}[x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{2\,b\,\text{Cosh}[x]\,\text{Csch}[2x]\,\text{Sinh}[x]}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+$$

$$\frac{2\,a\,\text{Coth}[2x]\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\frac{2\,b\,\text{Coth}[2x]\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\frac{2\,a\,\text{Csch}[2x]^2\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-$$

$$\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2\,(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])}{2\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}}+$$

$$\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2\,(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])}{2\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}}-$$

$$\left.\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2\,(-8\,(a-c)\,\text{Sinh}[2x]+4\,(a+b+c)\,\text{Sinh}[4x])}{2\,(3a-b+3c-4\,(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x])^{3/2}}\right)\Bigg/$$

$$\Bigg(32\,(-a+b+a\,\text{Cosh}[2x])\sqrt{3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}$$

$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}$$
$$\left.b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.$$
$$\left.c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])\right)}$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.\right.$$
$$\left.\left.\left.c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}$$
$$\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.}\right.$$
$$\left.\left.b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+\right.\right.$$
$$\left.\left.c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+\right.\right.\right.}$$
$$\left.\left.\left.b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x])+b\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+\right.\right.\right.$$
$$\left.\left.\left.c\,\text{Cosh}[4x])+c\,(3a-b+3c-4\,a\,\text{Cosh}[2x]+4\,c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]))\right)\right)\right)}\Bigg)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\right)+\left((-a+b)\,(1+\text{Cosh}[2\,x])\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Coth}[x]\,\text{Csch}[x]^2\,\text{Log}\left[b+2\,a\,\text{Tanh}[x]^2+2\,\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\,\right]\left(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)\left(-\frac{4\,(3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Sinh}[2\,x]}{(1+\text{Cosh}[2\,x])^3}+\frac{2\,(-4\,a+4\,c)\,\text{Sinh}[2\,x]+4\,(a+b+c)\,\text{Sinh}[4\,x]}{(1+\text{Cosh}[2\,x])^2}\right)\Big/\left(16\,\sqrt{2}\,\sqrt{a}\,(-a+b+a\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}\sqrt{\frac{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}{(1+\text{Cosh}[2\,x])^2}}\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\right)+\left(a\,\text{Cosh}[2\,x]\,(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\left(2\,a\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+2\,b\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+2\,c\,\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right)$$

$$\sqrt{\left(\frac{1}{a+b+c}\left(4a+2b+\sqrt{2}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)\right)\text{Csch}[x]^2$$

$$\left(\frac{a\,\text{Coth}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}-\frac{a\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}+\frac{b\,\text{Csch}[2x]\,\text{Sinh}[x]^2}{\sqrt{3a-b+3c-4(a-c)\,\text{Cosh}[2x]+(a+b+c)\,\text{Cosh}[4x]}}\right)$$

$$(-4a\,\text{Sinh}[2x]+4c\,\text{Sinh}[2x]+2a\,\text{Sinh}[4x]+2b\,\text{Sinh}[4x]+2c\,\text{Sinh}[4x])$$

$$\left((-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])\Big/\left(4\sqrt{2}\;a\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\left(1-\frac{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}{8a}\right)\right)-\left((2a+b)(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])\right)\Big/\left(4\sqrt{a}\,\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\,\sqrt{\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)}\right)-\left((2a+b)\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}\left(a(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+b(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])+c(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])\right)\Big/\left(4\sqrt{a}\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)^{3/2}\right)\right)\Big/\left(\sqrt{a}\left(1-\left((2a+b)^2\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)\Big/\left(4a\left(2b^2-8ac+a\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+b\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)+c\left(3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]\right)\right)\right)\right)\right)+\left(2\left(\frac{a(-8a\,\text{Sinh}[2x]+8c\,\text{Sinh}[2x]+4a\,\text{Sinh}[4x]+4b\,\text{Sinh}[4x]+4c\,\text{Sinh}[4x])}{2\sqrt{3a-b+3c-4a\,\text{Cosh}[2x]+4c\,\text{Cosh}[2x]+a\,\text{Cosh}[4x]+b\,\text{Cosh}[4x]+c\,\text{Cosh}[4x]}}+\right.\right.$$

$$\frac{b\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{2\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\frac{c\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])}{2\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}}+$$

$$\left(\sqrt{a+b+c}\,\left(a\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])+\right.\right.$$
$$b\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])+$$
$$\left.c\,(-8\,a\,\text{Sinh}[2\,x]+8\,c\,\text{Sinh}[2\,x]+4\,a\,\text{Sinh}[4\,x]+4\,b\,\text{Sinh}[4\,x]+4\,c\,\text{Sinh}[4\,x])\right)\Big/$$
$$\left(2\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.\right.$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\Big/$$

$$\left(\sqrt{a+b+c}\,\left(a\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\right.\right.$$
$$b\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+$$
$$c\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}+\sqrt{a+b+c}$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)\Big/$$

$$\left(32\,(-a+b+a\,\text{Cosh}[2\,x])\sqrt{3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x]}\right.$$
$$\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}$$
$$\sqrt{\left(\frac{1}{a+b+c}\left(-2\,b-4\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$\left.c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$
$$\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+\right.}\right.$$
$$b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+$$
$$\left.\left.c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)$$
$$\sqrt{\left(-1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+\right.\right.\right.}$$
$$b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+$$
$$\left.\left.\left.c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)\right)\right)$$

$$\sqrt{\left(1+\frac{1}{2\,(a+b+c)}\left(2\,a-2\,c+\sqrt{2}\,\sqrt{\left(2\,b^2-8\,a\,c+a\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+b\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])+c\,(3\,a-b+3\,c-4\,a\,\text{Cosh}[2\,x]+4\,c\,\text{Cosh}[2\,x]+a\,\text{Cosh}[4\,x]+b\,\text{Cosh}[4\,x]+c\,\text{Cosh}[4\,x])\right)}\right)\right)}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}\Bigg)+\Bigg((-a+b)\,(1+\text{Cosh}[2\,x])$$

$$(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])$$

$$\sqrt{\frac{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}{(1+\text{Cosh}[2\,x])^2}}$$

$$\text{Coth}[x]$$

$$\text{Csch}[x]^2$$

$$\left(\frac{a\,\text{Coth}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}-\frac{a\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}+\frac{b\,\text{Csch}[2\,x]\,\text{Sinh}[x]^2}{\sqrt{3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}}\right)$$

$$\left(4\,a\,\text{Sech}[x]^2\,\text{Tanh}[x]+\frac{\sqrt{a}\,\left(2\,b\,\text{Sech}[x]^2\,\text{Tanh}[x]+4\,a\,\text{Sech}[x]^2\,\text{Tanh}[x]^3\right)}{\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}}\right)\Bigg)\Bigg/\Bigg(8$$

$$\sqrt{2}$$

$$\sqrt{a}$$

$$(-a+b+a\,\text{Cosh}[2\,x])$$

$$\sqrt{3\,a-b+3\,c+(-4\,a+4\,c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x]}$$

$$\sqrt{(3\,a-b+3\,c-4\,(a-c)\,\text{Cosh}[2\,x]+(a+b+c)\,\text{Cosh}[4\,x])\,\text{Csch}[x]^4}$$

$$\left(b+2\,a\,\text{Tanh}[x]^2+2\,\sqrt{a}\,\sqrt{c+b\,\text{Tanh}[x]^2+a\,\text{Tanh}[x]^4}\right)\Bigg)\Bigg)$$

Timed out after 60 seconds:

$$\left\{\text{Tanh}[x]\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}\,,\,x,\,6,\,0\right\}$$

$$-\frac{(b+2\,c)\,\text{ArcTanh}\left[\frac{b+2\,c\,\text{Tanh}[x]^2}{2\,\sqrt{c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]}{4\,\sqrt{c}}+\frac{1}{2}\sqrt{a+b+c}\,\text{ArcTanh}\left[\frac{2\,a+b+(b+2\,c)\,\text{Tanh}[x]^2}{2\,\sqrt{a+b+c}\,\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}}\right]-\frac{1}{2}\sqrt{a+b\,\text{Tanh}[x]^2+c\,\text{Tanh}[x]^4}$$

???

Timed out after 60 seconds:

$$\left\{\text{Coth}[x]\,\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}\,,\,x,\,6,\,0\right\}$$

$$-\frac{(b+2c)\,\text{ArcTanh}\left[\frac{b+2c\,\text{Coth}[x]^2}{2\sqrt{c}\,\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]}{4\sqrt{c}}+$$

$$\frac{1}{2}\sqrt{a+b+c}\,\text{ArcTanh}\left[\frac{2a+b+(b+2c)\,\text{Coth}[x]^2}{2\sqrt{a+b+c}\,\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}}\right]-\frac{1}{2}\sqrt{a+b\,\text{Coth}[x]^2+c\,\text{Coth}[x]^4}$$

???

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{A+B\,\text{Cosh}[x]+C\,\text{Sinh}[x]}{(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^3},\ x,\ 3,\ 0\right\}$$

$$-\frac{\left(2a^2A+b\,(Ab-3aB)-c\,(Ac-3aC)\right)\,\text{ArcTanh}\left[\frac{c-(a-b)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{a^2-b^2+c^2}}\right]}{\left(a^2-b^2+c^2\right)^{5/2}}-\frac{Bc-bC+(Ac-aC)\,\text{Cosh}[x]+(Ab-aB)\,\text{Sinh}[x]}{2\left(a^2-b^2+c^2\right)(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^2}-$$

$$\frac{aBc-abC+(a\,(3Ac-aC)-2c\,(bB-cC))\,\text{Cosh}[x]+(a\,(3Ab-aB)-2b\,(bB-cC))\,\text{Sinh}[x]}{2\left(a^2-b^2+c^2\right)^2(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])}$$

$$\frac{\left(2a^2A+Ab^2-3abB-Ac^2+3acC\right)\,\text{ArcTan}\left[\frac{c+(-a+b)\,\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{-a^2+b^2-c^2}}\right]}{\left(-a^2+b^2-c^2\right)^{5/2}}+\frac{1}{4b\left(a^2-b^2+c^2\right)^2(a+b\,\text{Cosh}[x]+c\,\text{Sinh}[x])^2}$$

$$\left(6a^3Ac+3aAb^2c-9a^2bBc-3aAc^3-2a^4C+4a^2b^2C-2b^4C+5a^2c^2C+4b^2c^2C-2c^4C+\right.$$
$$2bc\left(2a^2A+Ab^2-3abB-Ac^2+3acC\right)\,\text{Cosh}[x]+c\left(3aA\left(-b^2+c^2\right)+a^2(bB-cC)+2\left(b^2-c^2\right)(bB-cC)\right)\,\text{Cosh}[2x]-$$
$$8a^2Ab^2\,\text{Sinh}[x]+2Ab^4\,\text{Sinh}[x]+4a^3bB\,\text{Sinh}[x]+2ab^3B\,\text{Sinh}[x]+12a^2Ac^2\,\text{Sinh}[x]-2Ab^2c^2\,\text{Sinh}[x]-$$
$$8abBc^2\,\text{Sinh}[x]-4a^3cC\,\text{Sinh}[x]-2ab^2cC\,\text{Sinh}[x]+8ac^3C\,\text{Sinh}[x]-3aAb^3\,\text{Sinh}[2x]+a^2b^2B\,\text{Sinh}[2x]+$$
$$\left.2b^4B\,\text{Sinh}[2x]+3aAbc^2\,\text{Sinh}[2x]-2b^2Bc^2\,\text{Sinh}[2x]-a^2bcC\,\text{Sinh}[2x]-2b^3cC\,\text{Sinh}[2x]+2bc^3C\,\text{Sinh}[2x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{e^x\,\text{Tanh}[2x],\ x,\ 8,\ 0\}$$

$$e^x+\frac{\text{ArcTan}\left[1-\sqrt{2}\,e^x\right]}{\sqrt{2}}-\frac{\text{ArcTan}\left[1+\sqrt{2}\,e^x\right]}{\sqrt{2}}+\frac{\text{Log}\left[1-\sqrt{2}\,e^x+e^{2x}\right]}{2\sqrt{2}}-\frac{\text{Log}\left[1+\sqrt{2}\,e^x+e^{2x}\right]}{2\sqrt{2}}$$

$$e^x+\frac{1}{2}\,\text{RootSum}\left[1+\#1^4\&,\ \frac{x-\text{Log}[e^x-\#1]}{\#1^3}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{e^x\,\text{Tanh}[3x],\ x,\ 7,\ 0\}$$

$$e^x-\frac{2\,\text{ArcTan}[e^x]}{3}-\frac{1}{3}\,\text{ArcTan}\left[\frac{e^x}{1-e^{2x}}\right]-\frac{\text{ArcTanh}\left[\frac{\sqrt{3}\,e^x}{1+e^{2x}}\right]}{\sqrt{3}}$$

$$e^x-\frac{2\,\text{ArcTan}[e^x]}{3}-\frac{1}{3}\,\text{RootSum}\left[1-\#1^2+\#1^4\&,\ \frac{-2x+2\,\text{Log}[-e^x+\#1]+x\,\#1^2-\text{Log}[-e^x+\#1]\,\#1^2}{-\#1+2\,\#1^3}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{e^x\,\text{Tanh}[4x],\ x,\ 10,\ 0\}$$

$$e^x - \frac{1}{4}\sqrt{2-\sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2-\sqrt{2}}\ e^x}{1-e^{2x}}\right] - \frac{1}{4}\sqrt{2+\sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2+\sqrt{2}}\ e^x}{1-e^{2x}}\right] -$$

$$\frac{1}{4}\sqrt{2-\sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2-\sqrt{2}}\ e^x}{1+e^{2x}}\right] - \frac{1}{4}\sqrt{2+\sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2+\sqrt{2}}\ e^x}{1+e^{2x}}\right]$$

$$e^x + \frac{1}{4}\text{RootSum}\left[1+\#1^8\&,\ \frac{x-\text{Log}[e^x-\#1]}{\#1^7}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x \text{Tanh}[2x]^2,\ x,\ 17,\ 0\right\}$$

$$e^x + \frac{e^x}{1+e^{4x}} + \frac{\text{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{2\sqrt{2}} - \frac{\text{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{2\sqrt{2}} + \frac{\text{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}} - \frac{\text{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}}$$

$$e^x + \frac{e^x}{1+e^{4x}} + \frac{1}{4}\text{RootSum}\left[1+\#1^4\&,\ \frac{x-\text{Log}[e^x-\#1]}{\#1^3}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x \text{Tanh}[3x]^2,\ x,\ 17,\ 0\right\}$$

$$e^x + \frac{2e^x}{3\left(1+e^{6x}\right)} - \frac{2\,\text{ArcTan}[e^x]}{9} - \frac{1}{9}\text{ArcTan}\left[\frac{e^x}{1-e^{2x}}\right] - \frac{\text{ArcTanh}\left[\frac{\sqrt{3}\ e^x}{1+e^{2x}}\right]}{3\sqrt{3}}$$

$$e^x + \frac{2e^x}{3\left(1+e^{6x}\right)} - \frac{2\,\text{ArcTan}[e^x]}{9} - \frac{1}{9}\text{RootSum}\left[1-\#1^2+\#1^4\&,\ \frac{-2x+2\,\text{Log}[-e^x+\#1]+x\#1^2-\text{Log}[-e^x+\#1]\#1^2}{-\#1+2\#1^3}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x \text{Tanh}[4x]^2,\ x,\ 21,\ 0\right\}$$

$$e^x + \frac{e^x}{2\left(1+e^{8x}\right)} - \frac{1}{16}\sqrt{2-\sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2-\sqrt{2}}\ e^x}{1-e^{2x}}\right] - \frac{1}{16}\sqrt{2+\sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2+\sqrt{2}}\ e^x}{1-e^{2x}}\right] -$$

$$\frac{1}{16}\sqrt{2-\sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2-\sqrt{2}}\ e^x}{1+e^{2x}}\right] - \frac{1}{16}\sqrt{2+\sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2+\sqrt{2}}\ e^x}{1+e^{2x}}\right]$$

$$e^x + \frac{e^x}{2\left(1+e^{8x}\right)} + \frac{1}{16}\text{RootSum}\left[1+\#1^8\&,\ \frac{x-\text{Log}[e^x-\#1]}{\#1^7}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x \text{Coth}[4x],\ x,\ 10,\ 0\right\}$$

$$e^x - \frac{\text{ArcTan}[e^x]}{2} + \frac{\text{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{2\sqrt{2}} - \frac{\text{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{2\sqrt{2}} - \frac{\text{ArcTanh}[e^x]}{2} + \frac{\text{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}} - \frac{\text{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}}$$

$$\frac{1}{4}\left(4e^x - 2\,\text{ArcTan}[e^x] + \text{Log}[1-e^x] - \text{Log}[1+e^x] + \text{RootSum}\left[1+\#1^4\&,\ \frac{x-\text{Log}[e^x-\#1]}{\#1^3}\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x \text{Coth}[4x]^2,\ x,\ 25,\ 0\right\}$$

$$e^x + \frac{e^x}{2\left(1 - e^{8x}\right)} - \frac{\text{ArcTan}[e^x]}{8} + \frac{\text{ArcTan}\left[1 - \sqrt{2}\ e^x\right]}{8\sqrt{2}} -$$

$$\frac{\text{ArcTan}\left[1 + \sqrt{2}\ e^x\right]}{8\sqrt{2}} - \frac{\text{ArcTanh}[e^x]}{8} + \frac{\text{Log}\left[1 - \sqrt{2}\ e^x + e^{2x}\right]}{16\sqrt{2}} - \frac{\text{Log}\left[1 + \sqrt{2}\ e^x + e^{2x}\right]}{16\sqrt{2}}$$

$$\frac{1}{16}\left(16\, e^x - \frac{8\, e^x}{-1 + e^{8x}} - 2\,\text{ArcTan}[e^x] + \text{Log}[1 - e^x] - \text{Log}[1 + e^x] + \text{RootSum}\left[1 + \#1^4\ \&,\ \frac{x - \text{Log}[e^x - \#1]}{\#1^3}\ \&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$\{e^x\,\text{Sech}[2x],\ x,\ 7,\ 0\}$

$$-\frac{\text{ArcTan}\left[1 - \sqrt{2}\ e^x\right]}{\sqrt{2}} + \frac{\text{ArcTan}\left[1 + \sqrt{2}\ e^x\right]}{\sqrt{2}} + \frac{\text{Log}\left[1 - \sqrt{2}\ e^x + e^{2x}\right]}{2\sqrt{2}} - \frac{\text{Log}\left[1 + \sqrt{2}\ e^x + e^{2x}\right]}{2\sqrt{2}}$$

$$-\frac{1}{2}\,\text{RootSum}\left[1 + \#1^4\ \&,\ \frac{x - \text{Log}[-e^x + \#1]}{\#1}\ \&\right]$$

Valid but unnecessarily complicated antiderivative:

$\{e^x\,\text{Sech}[3x],\ x,\ 7,\ 0\}$

$$-\frac{\text{ArcTan}\left[\frac{1 - 2\,e^{2x}}{\sqrt{3}}\right]}{\sqrt{3}} - \frac{1}{3}\,\text{Log}\left[1 + e^{2x}\right] + \frac{1}{6}\,\text{Log}\left[1 - e^{2x} + e^{4x}\right]$$

$$\frac{2x}{3} - \frac{1}{3}\,\text{Log}\left[2\left(1 + e^{2x}\right)\right] - \frac{1}{3}\,\text{RootSum}\left[1 - \#1^2 + \#1^4\ \&,\ \frac{x - \text{Log}[-e^x + \#1]}{\#1^2}\ \&\right]$$

Valid but unnecessarily complicated antiderivative:

$\{e^x\,\text{Sech}[4x],\ x,\ 9,\ 0\}$

$$\frac{1}{4}\sqrt{2 + \sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2 - \sqrt{2}}\ e^x}{1 - e^{2x}}\right] - \frac{1}{4}\sqrt{2 - \sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2 + \sqrt{2}}\ e^x}{1 - e^{2x}}\right] +$$

$$\frac{1}{4}\sqrt{2 + \sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2 - \sqrt{2}}\ e^x}{1 + e^{2x}}\right] - \frac{1}{4}\sqrt{2 - \sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2 + \sqrt{2}}\ e^x}{1 + e^{2x}}\right]$$

$$-\frac{1}{4}\,\text{RootSum}\left[1 + \#1^8\ \&,\ \frac{x - \text{Log}[-e^x + \#1]}{\#1^3}\ \&\right]$$

Valid but unnecessarily complicated antiderivative:

$\{e^x\,\text{Sech}[2x]^2,\ x,\ 8,\ 0\}$

$$-\frac{e^x}{1 + e^{4x}} - \frac{\text{ArcTan}\left[1 - \sqrt{2}\ e^x\right]}{2\sqrt{2}} + \frac{\text{ArcTan}\left[1 + \sqrt{2}\ e^x\right]}{2\sqrt{2}} - \frac{\text{Log}\left[1 - \sqrt{2}\ e^x + e^{2x}\right]}{4\sqrt{2}} + \frac{\text{Log}\left[1 + \sqrt{2}\ e^x + e^{2x}\right]}{4\sqrt{2}}$$

$$-\frac{e^x}{1 + e^{4x}} - \frac{1}{4}\,\text{RootSum}\left[1 + \#1^4\ \&,\ \frac{x - \text{Log}[-e^x + \#1]}{\#1^3}\ \&\right]$$

Valid but unnecessarily complicated antiderivative:

$\{e^x\,\text{Sech}[3x]^2,\ x,\ 8,\ 0\}$

$$-\frac{2\,e^x}{3\left(1+e^{6x}\right)}+\frac{2\,\text{ArcTan}[e^x]}{9}+\frac{1}{9}\,\text{ArcTan}\left[\frac{e^x}{1-e^{2x}}\right]+\frac{\text{ArcTanh}\left[\frac{\sqrt{3}\,e^x}{1+e^{2x}}\right]}{3\sqrt{3}}$$

$$\frac{1}{9}\left(-\frac{6\,e^x}{1+e^{6x}}+2\,\text{ArcTan}[e^x]+\text{RootSum}\left[1-\#1^2+\#1^4\&,\ \frac{-2\,x+2\,\text{Log}[-e^x+\#1]+x\,\#1^2-\text{Log}[-e^x+\#1]\,\#1^2}{-\#1+2\,\#1^3}\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x\,\text{Sech}[4\,x]^2,\ x,\ 10,\ 0\right\}$$

$$-\frac{e^x}{2\left(1+e^{8x}\right)}+\frac{1}{16}\sqrt{2-\sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2-\sqrt{2}}\ e^x}{1-e^{2x}}\right]+\frac{1}{16}\sqrt{2+\sqrt{2}}\ \text{ArcTan}\left[\frac{\sqrt{2+\sqrt{2}}\ e^x}{1-e^{2x}}\right]+$$

$$\frac{1}{16}\sqrt{2-\sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2-\sqrt{2}}\ e^x}{1+e^{2x}}\right]+\frac{1}{16}\sqrt{2+\sqrt{2}}\ \text{ArcTanh}\left[\frac{\sqrt{2+\sqrt{2}}\ e^x}{1+e^{2x}}\right]$$

$$-\frac{e^x}{2\left(1+e^{8x}\right)}-\frac{1}{16}\,\text{RootSum}\left[1+\#1^8\&,\ \frac{x-\text{Log}[-e^x+\#1]}{\#1^7}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x\,\text{Csch}[2\,x],\ x,\ 5,\ 0\right\}$$

$$\text{ArcTan}[e^x]-\text{ArcTanh}[e^x]$$

$$\frac{1}{2}\left(2\,\text{ArcTan}[e^x]+\text{Log}[-1+e^x]-\text{Log}[1+e^x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x\,\text{Csch}[4\,x],\ x,\ 11,\ 0\right\}$$

$$-\frac{1}{2}\,\text{ArcTan}[e^x]-\frac{\text{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{2\sqrt{2}}+\frac{\text{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{2\sqrt{2}}-\frac{\text{ArcTanh}[e^x]}{2}-\frac{\text{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}}+\frac{\text{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}}$$

$$\frac{1}{4}\left(-2\,\text{ArcTan}[e^x]+\text{Log}[1-e^x]-\text{Log}[1+e^x]-\text{RootSum}\left[1+\#1^4\&,\ \frac{x-\text{Log}[-e^x+\#1]}{\#1^3}\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x\,\text{Csch}[4\,x]^2,\ x,\ 12,\ 0\right\}$$

$$\frac{e^x}{2\left(1-e^{8x}\right)}-\frac{\text{ArcTan}[e^x]}{8}+\frac{\text{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{8\sqrt{2}}-\frac{\text{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{8\sqrt{2}}-\frac{\text{ArcTanh}[e^x]}{8}+\frac{\text{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{16\sqrt{2}}-\frac{\text{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{16\sqrt{2}}$$

$$\frac{1}{16}\left(-\frac{8\,e^x}{-1+e^{8x}}-2\,\text{ArcTan}[e^x]+\text{Log}[1-e^x]-\text{Log}[1+e^x]+\text{RootSum}\left[1+\#1^4\&,\ \frac{x-\text{Log}[e^x-\#1]}{\#1^3}\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{e^x\,\text{Sech}[2\,x]\,\text{Tanh}[2\,x],\ x,\ 10,\ 0\right\}$$

$$-\frac{e^{3x}}{1+e^{4x}}-\frac{\text{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{2\sqrt{2}}+\frac{\text{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{2\sqrt{2}}+\frac{\text{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}}-\frac{\text{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{4\sqrt{2}}$$

$$-\frac{e^{3x}}{1+e^{4x}}-\frac{1}{4}\,\text{RootSum}\left[1+\#1^4\&,\ \frac{x-\text{Log}[-e^x+\#1]}{\#1}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{e^x \operatorname{Sech}[2x]^2 \operatorname{Tanh}[2x],\ x,\ 11,\ 0\}$$

$$-\frac{e^x}{3\left(1+e^{4x}\right)^2}-\frac{4e^{5x}}{3\left(1+e^{4x}\right)^2}+\frac{e^x}{12\left(1+e^{4x}\right)}-\frac{\operatorname{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{8\sqrt{2}}+$$
$$\frac{\operatorname{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{8\sqrt{2}}-\frac{\operatorname{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{16\sqrt{2}}+\frac{\operatorname{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{16\sqrt{2}}$$
$$-\frac{e^x\left(1+5e^{4x}\right)}{4\left(1+e^{4x}\right)^2}-\frac{1}{16}\operatorname{RootSum}\left[1+\#1^4\&,\ \frac{x-\operatorname{Log}[-e^x+\#1]}{\#1^3}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{e^x \operatorname{Sech}[2x]\operatorname{Tanh}[2x]^2,\ x,\ 12,\ 0\}$$

$$-\frac{e^{3x}}{\left(1+e^{4x}\right)^2}-\frac{2e^{7x}}{\left(1+e^{4x}\right)^2}+\frac{5e^{3x}}{4\left(1+e^{4x}\right)}-\frac{5\operatorname{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{8\sqrt{2}}+$$
$$\frac{5\operatorname{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{8\sqrt{2}}+\frac{5\operatorname{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{16\sqrt{2}}-\frac{5\operatorname{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{16\sqrt{2}}$$
$$\frac{e^{3x}-3e^{7x}}{4\left(1+e^{4x}\right)^2}-\frac{5}{16}\operatorname{RootSum}\left[1+\#1^4\&,\ \frac{x-\operatorname{Log}[-5e^x+5\#1]}{\#1}\&\right]$$

Valid but unnecessarily complicated antiderivative:

$$\{e^x \operatorname{Sech}[2x]^2 \operatorname{Tanh}[2x]^2,\ x,\ 13,\ 0\}$$

$$-\frac{4e^x}{7\left(1+e^{4x}\right)^3}-\frac{4e^{5x}}{7\left(1+e^{4x}\right)^3}-\frac{4e^{9x}}{3\left(1+e^{4x}\right)^3}+\frac{e^x}{14\left(1+e^{4x}\right)^2}+\frac{e^x}{8\left(1+e^{4x}\right)}-$$
$$\frac{3\operatorname{ArcTan}\left[1-\sqrt{2}\ e^x\right]}{16\sqrt{2}}+\frac{3\operatorname{ArcTan}\left[1+\sqrt{2}\ e^x\right]}{16\sqrt{2}}-\frac{3\operatorname{Log}\left[1-\sqrt{2}\ e^x+e^{2x}\right]}{32\sqrt{2}}+\frac{3\operatorname{Log}\left[1+\sqrt{2}\ e^x+e^{2x}\right]}{32\sqrt{2}}$$
$$\frac{1}{96}\left(-\frac{4e^x\left(9+6e^{4x}+29e^{8x}\right)}{\left(1+e^{4x}\right)^3}-9\operatorname{RootSum}\left[1+\#1^4\&,\ \frac{x-\operatorname{Log}[-3e^x+3\#1]}{\#1^3}\&\right]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{e^x}{a-\operatorname{Tanh}[2x]},\ x,\ 6,\ 0\right\}$$

$$-\frac{e^x}{1-a}+\frac{\operatorname{ArcTan}\left[\frac{(1-a)^{1/4}e^x}{(1+a)^{1/4}}\right]}{(1-a)^{5/4}(1+a)^{3/4}}+\frac{\operatorname{ArcTanh}\left[\frac{(1-a)^{1/4}e^x}{(1+a)^{1/4}}\right]}{(1-a)^{5/4}(1+a)^{3/4}}$$
$$\frac{2(-1+a)e^x+\operatorname{RootSum}\left[1+a-\#1^4+a\#1^4\&,\ \frac{x-\operatorname{Log}[-e^x+\#1]}{\#1^3}\&\right]}{2(-1+a)^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{e^x}{(a-\operatorname{Tanh}[2x])^2},\ x,\ 13,\ 0\right\}$$

$$\frac{e^x}{(1-a)^2}+\frac{e^x}{(1-a)^2\,(1+a)\,\left(1+a-(1-a)\,e^{4x}\right)}+\frac{(1-2a)\,\text{ArcTan}\left[\frac{(1-a)^{1/4}\,e^x}{(1+a)^{1/4}}\right]}{2\,(1-a)^{9/4}\,(1+a)^{7/4}}-$$

$$\frac{\text{ArcTan}\left[\frac{(1-a)^{1/4}\,e^x}{(1+a)^{1/4}}\right]}{(1-a)^{9/4}\,(1+a)^{3/4}}+\frac{(1-2a)\,\text{ArcTanh}\left[\frac{(1-a)^{1/4}\,e^x}{(1+a)^{1/4}}\right]}{2\,(1-a)^{9/4}\,(1+a)^{7/4}}-\frac{\text{ArcTanh}\left[\frac{(1-a)^{1/4}\,e^x}{(1+a)^{1/4}}\right]}{(1-a)^{9/4}\,(1+a)^{3/4}}$$

$$\frac{4\,(-1+a)\,e^x+\frac{4\,(-1+a)\,e^x}{(1+a)\,\left(1+a-e^{4x}+a\,e^{4x}\right)}+\frac{(1+4a)\,\text{RootSum}\left[1+a-\#1^4+a\,\#1^4\&,\frac{x-\text{Log}\left[-e^x+\#1\right]}{\#1^3}\&\right]}{1+a}}{4\,(-1+a)^3}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^2}{a+b\,\text{Tanh}[x]},\,x,\,2,\,0\right\}$$

$$\frac{\text{Log}[a+b\,\text{Tanh}[x]]}{b}$$

$$\frac{-\text{Log}[\text{Cosh}[x]]+\text{Log}[-a\,\text{Cosh}[x]-b\,\text{Sinh}[x]]}{b}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^2}{\sqrt{4-\text{Sech}[x]^2}},\,x,\,2,\,0\right\}$$

$$\text{ArcSinh}\left[\frac{\text{Tanh}[x]}{\sqrt{3}}\right]$$

$$\frac{1}{3\sqrt{2+\text{Sech}[x]^2+2\,\text{Tanh}[x]^2}}$$

$$2\,i\,\text{Cosh}\left[\frac{x}{2}\right]^2\left(\text{EllipticF}\left[i\,\text{ArcSinh}\left[\sqrt{3}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\frac{1}{9}\right]-2\,\text{EllipticPi}\left[\frac{1}{3},\,i\,\text{ArcSinh}\left[\sqrt{3}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\frac{1}{9}\right]\right)$$

$$\text{Sech}[x]\sqrt{3+\text{Tanh}\left[\frac{x}{2}\right]^2}\sqrt{1+3\,\text{Tanh}\left[\frac{x}{2}\right]^2}$$

FullSimplify::infd:

$$\text{Expression}\;-\left(\left(-7+4\sqrt{3}\right)(5-3\,\text{Cosh}[2x])^2\,\text{Sech}\left[\frac{x}{2}\right]^4\text{Sech}[x]^4\right)\Bigg/\left(16\sqrt{\frac{4+2\sqrt{3}-3\,\text{Cosh}[x]-2\sqrt{3}\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}\right.$$

$$\sqrt{\frac{4-2\sqrt{3}+(3-2\,\text{Power}[\ll 2\gg])\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}\sqrt{\frac{4-2\sqrt{3}+(-3+2\,\text{Power}[\ll 2\gg])\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}$$

$$\left.\sqrt{\frac{52-30\sqrt{3}+(-45+26\,\text{Power}[\ll 2\gg])\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}\left(1-4\,\text{Tanh}[x]^2\right)^{3/2}\right)\text{ simplified to Indeterminate. }\gg$$

FullSimplify::infd:

$$\text{Expression} -\left(\left(\left(-7+4\sqrt{3}\right)(5-3\,\text{Cosh}[2x])^2\,\text{Sech}\left[\frac{x}{2}\right]^4\,\text{Sech}[x]^4\right)\Big/\left(16\sqrt{\frac{4+2\sqrt{3}\ -3\,\text{Cosh}[x]-2\sqrt{3}\ \text{Cosh}[x]}{1+\text{Cosh}[x]}}\right.\right.$$
$$\sqrt{\frac{4-2\sqrt{3}\ +(3+\text{Times}[\ll 2\gg])\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}\ \sqrt{\frac{4-2\sqrt{3}\ +(-3+\text{Times}[\ll 2\gg])\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}$$
$$\left.\left.\sqrt{\frac{52-30\sqrt{3}\ +(-45+\text{Times}[\ll 2\gg])\,\text{Cosh}[x]}{1+\text{Cosh}[x]}}\ \left(1-4\,\text{Tanh}[x]^2\right)^{3/2}\right)-\frac{\text{Sech}[x]^2}{\sqrt{1-4\,\text{Tanh}[x]^2}}\right)$$

simplified to Indeterminate. ≫

Incorrect antiderivative:

$$\left\{\frac{\text{Sech}[x]^2}{\sqrt{1-4\,\text{Tanh}[x]^2}},\ x,\ 2,\ 0\right\}$$

$$\frac{1}{2}\,\text{ArcSin}[2\,\text{Tanh}[x]]$$

$$-\frac{1}{\sqrt{1-4\,\text{Tanh}[x]^2}}$$
$$2\,\text{Cosh}\left[\frac{x}{2}\right]^2\left(\text{EllipticF}\left[\text{ArcSin}\left[\frac{\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{7-4\sqrt{3}}}\right],\ 97-56\sqrt{3}\ \right]+2\,\text{EllipticPi}\left[-7+4\sqrt{3}\ ,\ -\text{ArcSin}\left[\frac{\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{7-4\sqrt{3}}}\right],\ 97-56\sqrt{3}\ \right]\right)$$
$$\text{Sech}[x]\sqrt{7-4\sqrt{3}\ -\text{Tanh}\left[\frac{x}{2}\right]^2}\ \sqrt{1+\left(-7+4\sqrt{3}\right)\text{Tanh}\left[\frac{x}{2}\right]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^2}{\sqrt{-4+\text{Tanh}[x]^2}},\ x,\ 2,\ 0\right\}$$

$$\text{ArcTanh}\left[\frac{\text{Tanh}[x]}{\sqrt{-4+\text{Tanh}[x]^2}}\right]$$

$$-\frac{1}{\sqrt{-4+\text{Tanh}[x]^2}}\,2\,(-1)^{2/3}\,\text{Cosh}\left[\frac{x}{2}\right]^2$$
$$\left(\text{EllipticF}\left[i\,\text{ArcSinh}\left[(-1)^{5/6}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\ (-1)^{2/3}\right]+2\,\text{EllipticPi}\left[(-1)^{1/3},\ -i\,\text{ArcSinh}\left[(-1)^{5/6}\,\text{Tanh}\left[\frac{x}{2}\right]\right],\ (-1)^{2/3}\right]\right)$$
$$\text{Sech}[x]\sqrt{1+(-1)^{1/3}\,\text{Tanh}\left[\frac{x}{2}\right]^2}\ \sqrt{1-(-1)^{2/3}\,\text{Tanh}\left[\frac{x}{2}\right]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\sqrt{1+\text{Coth}[x]^2}\ \text{Sech}[x]^2,\ x,\ 4,\ 0\right\}$$

$$-\text{ArcCsch}[\text{Tanh}[x]]+\sqrt{1+\text{Coth}[x]^2}\ \text{Tanh}[x]$$

$$\sqrt{1+\text{Coth}[x]^2}\left(\frac{\text{ArcTan}\left[\frac{\text{Cosh}[x]}{\sqrt{-\text{Cosh}[2x]}}\right]\text{Sinh}[x]}{\sqrt{-\text{Cosh}[2x]}}+\text{Tanh}[x]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\text{Sech}[x]^2\sqrt{1+\text{Tanh}[x]^2},\ x,\ 3,\ 0\right\}$$

$$\frac{1}{2}\text{ArcSinh}[\text{Tanh}[x]]+\frac{1}{2}\text{Tanh}[x]\sqrt{1+\text{Tanh}[x]^2}$$

$$\frac{1}{2}\left(2\,i\,\text{Cosh}\left[\frac{x}{2}\right]^2\text{Cosh}[x]\right.$$

$$\left(\text{EllipticF}\left[i\,\text{ArcSinh}\left[\frac{\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3+2\sqrt{2}}}\right],\ 17+12\sqrt{2}\right]-2\,\text{EllipticPi}\left[3+2\sqrt{2},\ i\,\text{ArcSinh}\left[\frac{\text{Tanh}\left[\frac{x}{2}\right]}{\sqrt{3+2\sqrt{2}}}\right],\ 17+12\sqrt{2}\right]\right)$$

$$\left.\text{Sech}[2x]\sqrt{3+2\sqrt{2}+\text{Tanh}\left[\frac{x}{2}\right]^2}\sqrt{1+\left(3+2\sqrt{2}\right)\text{Tanh}\left[\frac{x}{2}\right]^2}+\text{Tanh}[x]\right)\sqrt{1+\text{Tanh}[x]^2}$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^2}{2+2\,\text{Tanh}[x]+\text{Tanh}[x]^2},\ x,\ 2,\ 0\right\}$$

$$\text{ArcTan}[1+\text{Tanh}[x]]$$

$$\frac{1}{2}\left(-\text{ArcTan}[\text{Cosh}[x]\,(\text{Cosh}[x]-\text{Sinh}[x])]+\text{ArcTan}[1+\text{Tanh}[x]]\right)$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{\text{Sech}[x]^2\,(a+b\,\text{Tanh}[x])}{c+d\,\text{Tanh}[x]},\ x,\ 4,\ 0\right\}$$

$$-\frac{(b\,c-a\,d)\,\text{Log}[c+d\,\text{Tanh}[x]]}{d^2}+\frac{b\,\text{Tanh}[x]}{d}$$

$$\frac{1}{d^2\,(c+d\,\text{Tanh}[x])}\text{Sech}[x]^2\,(c\,\text{Cosh}[x]+d\,\text{Sinh}[x])\,((b\,c-a\,d)\,\text{Cosh}[x]\,(\text{Log}[\text{Cosh}[x]]-\text{Log}[c\,\text{Cosh}[x]+d\,\text{Sinh}[x]])+b\,d\,\text{Sinh}[x])$$

Valid but unnecessarily complicated antiderivative:

$$\left\{\frac{(a+b\,\text{Coth}[x])\,\text{Csch}[x]^2}{c+d\,\text{Coth}[x]},\ x,\ 4,\ 0\right\}$$

$$-\frac{b\,\text{Coth}[x]}{d}+\frac{(b\,c-a\,d)\,\text{Log}[c+d\,\text{Coth}[x]]}{d^2}$$

$$-\frac{1}{d^2\,(c+d\,\text{Coth}[x])}\text{Csch}[x]^2\,(d\,\text{Cosh}[x]+c\,\text{Sinh}[x])\,(b\,d\,\text{Cosh}[x]+(b\,c-a\,d)\,(\text{Log}[\text{Sinh}[x]]-\text{Log}[d\,\text{Cosh}[x]+c\,\text{Sinh}[x]])\,\text{Sinh}[x])$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]^3\,(a+b\,\text{Cosh}[x]^2)^3\,\text{Sinh}[x],\ x,\ 4,\ 0\}$$

$$-\frac{a\,(a+b\,\text{Cosh}[x]^2)^4}{40\,b^2}+\frac{\text{Cosh}[x]^2\,(a+b\,\text{Cosh}[x]^2)^4}{10\,b}$$

$$\frac{1}{32}\left(12\,a^2\,b\,\text{Cosh}[x]^4+8\,a\,b^2\,\text{Cosh}[x]^6+2\,b^3\,\text{Cosh}[x]^8+4\,a^3\,\text{Cosh}[2\,x]+\right.$$
$$4\,a^2\,b\,\text{Cosh}[x]^3\,\text{Cosh}[3\,x]+a^3\,\text{Cosh}[4\,x]+\frac{1}{32}\,a\,b^2\,(48\,\text{Cosh}[2\,x]+36\,\text{Cosh}[4\,x]+16\,\text{Cosh}[6\,x]+3\,\text{Cosh}[8\,x])+$$
$$\left.\frac{1}{320}\,b^3\,(140\,\text{Cosh}[2\,x]+100\,\text{Cosh}[4\,x]+50\,\text{Cosh}[6\,x]+15\,\text{Cosh}[8\,x]+2\,\text{Cosh}[10\,x])\right)$$

Valid but unnecessarily complicated antiderivative:

$$\{\text{Cosh}[x]\,\text{Sinh}[x]^3\,(a+b\,\text{Sinh}[x]^2)^3,\ x,\ 4,\ 0\}$$

$$-\frac{a\,(a+b\,\text{Sinh}[x]^2)^4}{40\,b^2}+\frac{\text{Sinh}[x]^2\,(a+b\,\text{Sinh}[x]^2)^4}{10\,b}$$

$$\frac{1}{10\,240}\,(-20\,(64\,a^3+24\,a\,b^2-7\,b^3)\,\text{Cosh}[2\,x]+20\,(16\,a^3+18\,a\,b^2-5\,b^3)\,\text{Cosh}[4\,x]+$$
$$b\,(-10\,(16\,a-5\,b)\,b\,\text{Cosh}[6\,x]+15\,(2\,a-b)\,b\,\text{Cosh}[8\,x]+2\,(b^2\,\text{Cosh}[10\,x]+160\,((-4\,a+b)^2-b^2\,\text{Cosh}[2\,x])\,\text{Sinh}[x]^6)))$$