Mathematical equations of hyperbel functions

See: *Papula, L., (2003), Mathematische Formelsammlung, Vieweg*

$$F_{1b}(x) = b\tanh(x) = b\frac{e^x - e^{-x}}{e^x + e^{-x}} = b\frac{u(x)}{v(x)} \quad [1]$$

$$F'_{1b}(x) = b\frac{u'(x)\,v(x) - u(x)\,v'(x)}{v^2(x)} \quad [2]$$

$$F'_{1b}(x) = b\frac{v^2(x) - u^2(x)}{a\,v^2(x)} \quad [3]$$

$$F'_{1b}(x) = \frac{4b}{[e^x + e^{-x}]^2} = \frac{b}{\cosh^2(x)} \quad [4]$$

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