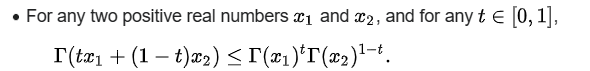
Gautschi's inequality

Intro



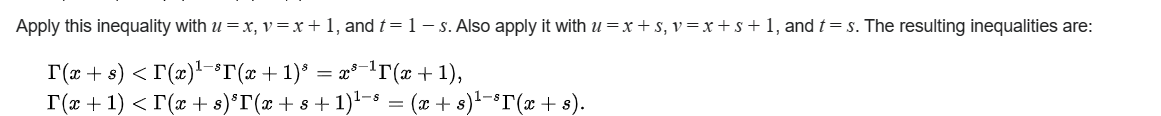
Substuting them with

=

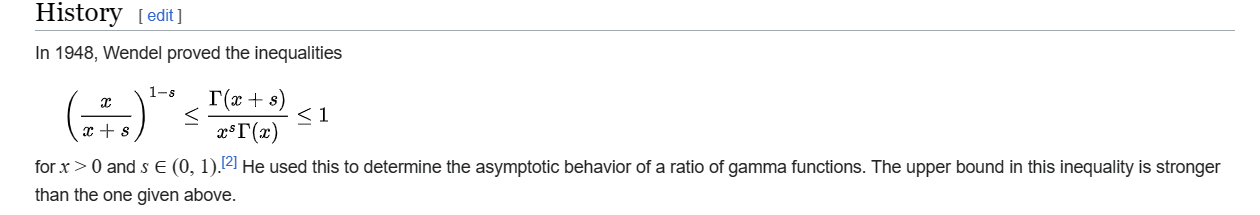
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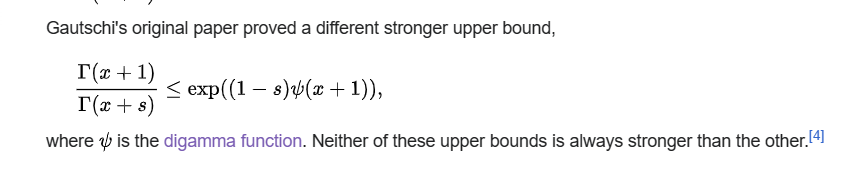
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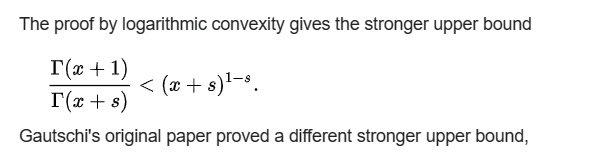
We have that



Then we divide two above inequalities, getting







Ref

[Gautschi's inequality - Wikipedia](https://en.wikipedia.org/wiki/Gautschi%27s_inequality)