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$$\lim_{x\to 0}\left(\frac{3^x+6^x}{2^x+3^x}\right)^{\frac{1}{\operatorname{arctg} x}} =$$

$$\frac{1}{\operatorname{arctg} x}\log\frac{3^x+6^x}{2^x+3^x}$$

$$= \lim_{x\to 0} e^{\frac{1}{\operatorname{arctg} x}\log\left[1+\left(\frac{3^x+6^x}{2^x+3^x}-1\right)\right]}$$

$$= \lim_{x\to 0} e^{\frac{1}{\operatorname{arctg} x}\left(\frac{3^x+6^x}{2^x+3^x}-1\right)\frac{\log\left[1+\left(\frac{3^x+6^x}{2^x+3^x}-1\right)\right]}{\left(\frac{3^x+6^x}{2^x+3^x}-1\right)}} =$$

$$= \lim_{x\to 0} e^{\frac{x}{\operatorname{arctg} x}\cdot\frac{1}{2^x+3^x}\left(3^x+6^x-2^x-3^x\right)\cdot\log\frac{\left[1+\left(\frac{3^x+6^x}{2^x+3^x}-1\right)\right]}{\left(\frac{3^x+6^x}{2^x+3^x}-1\right)}}$$

$$= \lim_{x\to 0} e^{\frac{x}{\operatorname{arctg} x}\frac{1}{2^x+3^x}\left(\frac{3^x-1}{x}+\frac{6^x-1}{x}-\frac{2^x-1}{x}\right)\log\frac{\left[1+\left(\frac{3^x+6^x}{2^x+3^x}-1\right)\right]}{\left(\frac{3^x+6^x}{2^x+3^x}-1\right)}}$$

$$\lim_{x\to 0} e^{1\cdot\frac{1}{2}\left(\log\frac{3\cdot 6}{2\cdot 3}\right)\cdot 1} =$$

$$= e^{\log\sqrt{3}} = \sqrt{3}$$

1. Pavarotti - Turandot / Tosca - 3 cassette
4. Prokofiev - Pierino e il lupo. The Chamber Orchestra of Europe - Claudio Abbado
CD + audiocassetta
6. Prokofiev - Romeo & Giulietta (estratti). Berliner Philharmoniker - Herbert Von Karajan