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$$\lim_{x \to a} \frac{f(x)}{g(x)} = \frac{\lim_{x \to a} f^{|}(x)}{\lim_{x \to a} g^{|}(x)} = \frac{f^{|}(a)}{g^{|}(a)}$$

Expression of infinity by infinity form of l hospital rule in application of derivatives

- $$f(x) = \infty$$
- $$g(x) = \infty$$
- $$\lim_{x \to a} \frac{f(x)}{g(x)} = \frac{\frac{1}{g(x)}}{\frac{1}{f(x)}}$$