

Part I of L' Hospital's Rule with Indeterminant Form

Lesson 290 | Calculus AB | L'Hopital's rule

<https://www.youtube.com/watch?v=NHd-y8lrOp8>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(12x)} - 1)/(5x)$ using L'Hospital's rule. Check its indeterminate form.

02

Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(2x)} - 1)/(12x)$ using L'Hospital's rule. Check its indeterminate form.

03

Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(11x)} - 1)/(5x)$ using L'Hospital's rule. Check its indeterminate form.

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Name: _____ Date: _____ Show your reasoning.

04 Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(3x)} - 1)/(14x)$ using L'Hospital's rule. Check its indeterminate form.

05 Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(13x)} - 1)/(6x)$ using L'Hospital's rule. Check its indeterminate form.

06 Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(10x)} - 1)/(4x)$ using L'Hospital's rule. Check its indeterminate form.

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01 Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(12x)} - 1)/(5x)$ using L'Hospital's rule. Check its indeterminate form.

Numerator and denominator both tend to 0. Differentiate separately: $12e^{(12x)}/5$. Its limit is $12/5$.

02 Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(2x)} - 1)/(12x)$ using L'Hospital's rule. Check its indeterminate form.

Numerator and denominator both tend to 0. Differentiate separately: $2e^{(2x)}/12$. Its limit is $1/6$.

03 Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(11x)} - 1)/(5x)$ using L'Hospital's rule. Check its indeterminate form.

Numerator and denominator both tend to 0. Differentiate separately: $11e^{(11x)}/5$. Its limit is $11/5$.

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04

Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(3x)} - 1)/(14x)$ using L'Hospital's rule. Check its indeterminate form.

Numerator and denominator both tend to 0. Differentiate separately: $3e^{(3x)}/14$. Its limit is $3/14$.

05

Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(13x)} - 1)/(6x)$ using L'Hospital's rule. Check its indeterminate form.

Numerator and denominator both tend to 0. Differentiate separately: $13e^{(13x)}/6$. Its limit is $13/6$.

06

Evaluate $\lim_{x \rightarrow 0}$ of $(e^{(10x)} - 1)/(4x)$ using L'Hospital's rule. Check its indeterminate form.

Numerator and denominator both tend to 0. Differentiate separately: $10e^{(10x)}/4$. Its limit is $5/2$.