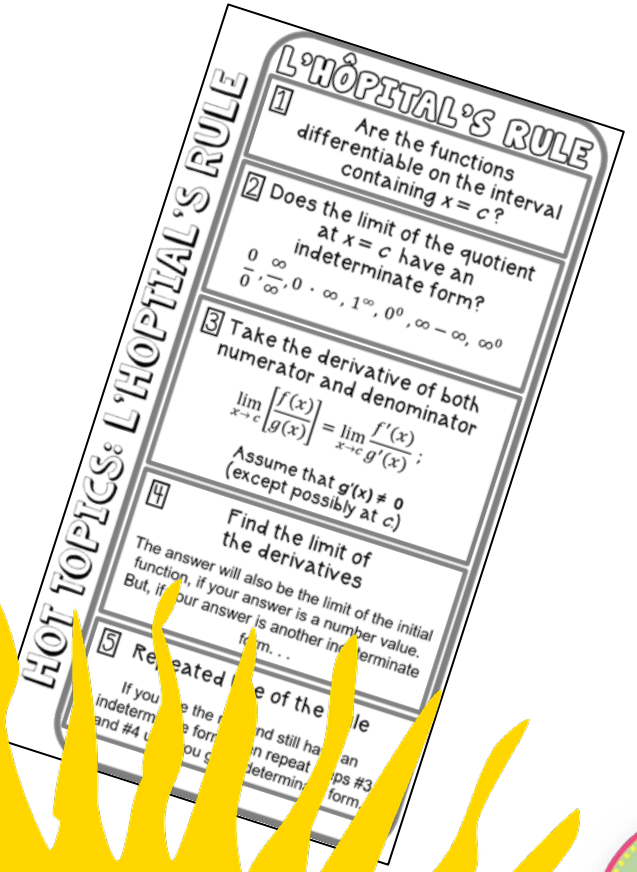
Using L'Hospital's Rule

Infographic



HOT TOPICS

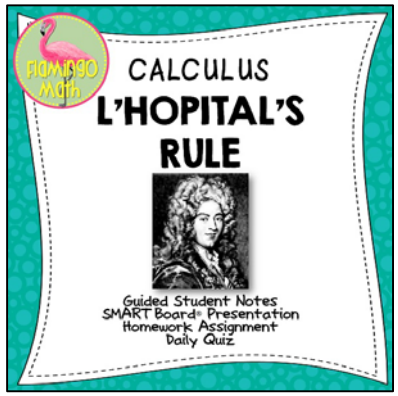
Flamingo Math

FLAMINGO MATH

L'Hospital's Rule is a skill that Calculus students need, after the derivative is taught.

Here is a free HOT TOPICS INFOGRAPHIC:

- Students can use the infographic as a page in their Interactive Notebook.
- Copy on card stock and laminate to be used as a bookmark or reference card while working through your lesson.
- Students can create a collection of HOT TOPICS for review at the end of the course.



Do you need a full lesson on this topic? Be sure to check out my Calculus products:

Read my blog post for:

Keep Calm and Use L'Hospital's Rule

HOT TOPICS: L'HOPTIAL'S RULE

L'HÔPITAL'S RULE

1 Are the functions differentiable on the interval containing $x = c$?

2 Does the limit of the quotient at $x = c$ have an indeterminate form?

$$\frac{0}{0}, \frac{\infty}{\infty}, 0 \cdot \infty, 1^{\infty}, 0^{0}, \infty - \infty, \infty^{0}$$

3 Take the derivative of both numerator and denominator

$$\lim_{x \to c}\left[\frac{f(x)}{g(x)}\right] = \lim_{x \to c}\frac{f'(x)}{g'(x)};$$

Assume that $g'(x) \neq 0$ (except possibly at c.)

4 Find the limit of the derivatives

The answer will also be the limit of the initial function, if your answer is a number value. But, if your answer is another indeterminate form. . .

5 Repeated Use of the Rule

If you use the rule and still have an indeterminate form, then repeat steps #3 and #4 until you get a determinate form.

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Directions: There are two HOT TOPICS per page. Print the HOT TOPIC on paper or card stock. Then, cut each one out individually. These can be used as a laminated bookmark, or as a notebook foldable.

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