

PROPERTIES OF LIMITS

Infographic

HOT TOPICS: PROPERTIES OF LIMITS

PROPERTIES OF LIMITS

- 1** Limit of a Sum or Difference
 $\lim_{x \rightarrow c} [f(x) \pm g(x)] = \lim_{x \rightarrow c} f(x) \pm \lim_{x \rightarrow c} g(x)$
- 2** Limit of a Product
 $\lim_{x \rightarrow c} [f(x) \cdot g(x)] = \left[\lim_{x \rightarrow c} f(x) \right] \left[\lim_{x \rightarrow c} g(x) \right]$
- 3** Limit of a Monomial
If $n \geq 1$ is a positive integer and a is a constant, then
 $\lim_{x \rightarrow c} (ax^n) = ac^n$
- 4** Limit of a Power or Root
If the limit exists and if $n \geq 2$ is a positive integer,
 $\lim_{x \rightarrow c} [f(x)]^n = \left(\lim_{x \rightarrow c} f(x) \right)^n$
For Root formula, both limits must be defined.
 $\lim_{x \rightarrow c} \sqrt[n]{f(x)} = \sqrt[n]{\lim_{x \rightarrow c} f(x)}$
- 5** Limit of a Quotient
 $\lim_{x \rightarrow c} \left[\frac{f(x)}{g(x)} \right] = \frac{\lim_{x \rightarrow c} f(x)}{\lim_{x \rightarrow c} g(x)}$ if $\lim_{x \rightarrow c} g(x) \neq 0$

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HOT TOPICS

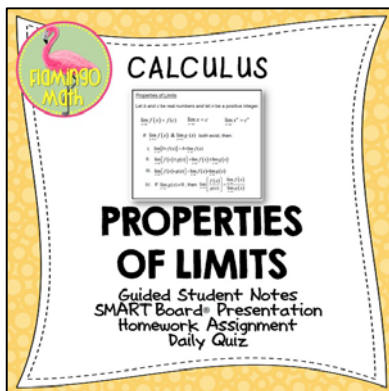


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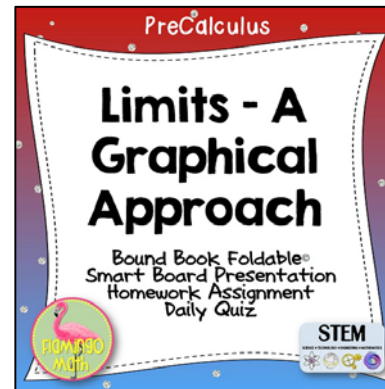
Properties of Limits is a skill that both PreCalculus and Calculus students need.

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 [Precalculus products](#) and my [Calculus products](#):



Read my blog post for:

[3 Tips Before Teaching Limits](#)



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2 Limit of a Product

$$\lim_{x \rightarrow c} [f(x) \cdot g(x)] = \left[\lim_{x \rightarrow c} f(x) \right] \left[\lim_{x \rightarrow c} g(x) \right]$$

3 Limit of a Monomial

If $n \geq 1$ is a positive integer and a is a constant, then

$$\lim_{x \rightarrow c} (ax^n) = ac^n$$

4 Limit of a Power or Root

If the limit exists and if $n \geq 2$ is a positive integer, then

$$\lim_{x \rightarrow c} [f(x)]^n = \left(\lim_{x \rightarrow c} f(x) \right)^n$$

$$\lim_{x \rightarrow c} \sqrt[n]{f(x)} = \sqrt[n]{\lim_{x \rightarrow c} f(x)}$$

For the Root formula, both limits must be defined.

5 Limit of a Quotient

$$\lim_{x \rightarrow c} \left[\frac{f(x)}{g(x)} \right] = \frac{\lim_{x \rightarrow c} f(x)}{\lim_{x \rightarrow c} g(x)} ; \lim_{x \rightarrow c} g(x) \neq 0$$

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