

The limit of a difference is the difference of the limits.

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(The limit of a difference is the difference of the limits.)

The limit of a difference is the difference of the limits.

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▶ End

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▶ End

Theorem

The limit of a difference is the difference of the limits.

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L$$

The limit of a difference is the difference of the limits.

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

$$\lim_{x \rightarrow a} \{f(x) - g(x)\}$$

The limit of a difference is the difference of the limits.

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

$$\lim_{x \rightarrow a} \{f(x) - g(x)\} = L - M$$

The limit of a difference is the difference of the limits.

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

$$\lim_{x \rightarrow a} \{f(x) - g(x)\} = L - M$$

Proof.

The limit of a difference is the difference of the limits.

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

$$\lim_{x \rightarrow a} \{f(x) - g(x)\} = L - M$$

Proof.

$$\lim_{x \rightarrow a} \{f(x) - g(x)\}$$

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

$$\lim_{x \rightarrow a} \{f(x) - g(x)\} = L - M$$

Proof.

$$\lim_{x \rightarrow a} \{f(x) - g(x)\} = \lim_{x \rightarrow a} \{f(x) + (-1) \cdot g(x)\}$$

The limit of a difference is the difference of the limits.

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▶ End

Theorem

$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

$$\lim_{x \rightarrow a} \{f(x) - g(x)\} = L - M$$

Proof.

$$\begin{aligned} \lim_{x \rightarrow a} \{f(x) - g(x)\} &= \lim_{x \rightarrow a} \{f(x) + (-1) \cdot g(x)\} \\ &= \lim_{x \rightarrow a} f(x) + \lim_{x \rightarrow a} \{(-1) \cdot g(x)\} \end{aligned}$$

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▶ End

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$$\lim_{x \rightarrow a} f(x) = L, \lim_{x \rightarrow a} g(x) = M$$

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Github:

<https://min7014.github.io/math20240103001.html>

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and you can see a picture moving.