

Functions

Lecture 2

Section 1.1

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Fri, Jan 20, 2017

Objectives

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- Evaluate a function.
- Identify the domain of a function.
- Understand piecewise functions.

Domain and Range

Definition (Domain of a Function)

The **domain** of a function $f(x)$ is the set of all values of x that may be assigned to x .

Definition (Range of a Function)

The **range** of a function $f(x)$ is the set of all values that $f(x)$ takes on as x varies over the domain.

Domain of a Function

Examples

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- $f(x) = \sqrt{x^2 - 4}$

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- $f(x) = \frac{1}{\sqrt{x^2 - 4}}$