

# Lecture 4: Continuous Random Variables

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## Continuous random variables

# Continuous random variables

- A continuous random variable models the result of an experiment that can potentially take infinitely many values.
- That is, it is a function:

$$X: \Omega \rightarrow \mathbb{R}$$

# Example of continuous random variable

- You have a machine that manufactures steel balls.
- You manufacture a steel ball and you measure its mass.

$X$  = mass of 