

View this course as: **受講者向け掲示板**

Home Course **Discussion** Progress Syllabus

各週の授業は、講義ビデオや問題等で構成されます。

講義ビデオ

確認問題

Week 1 > Introduction to Prime Numbers > Part 1 | Infinity of prime numbers

Navigation bar with icons for video, transcript, and problem sets.

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第1週目講義

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毎週、授業コンテンツを追加していきます。

Part 1 | Infinity of prime numbers

Part 1 | Infinity of prime numbers

Video player showing a lecture slide:

What are prime numbers?

Definition
A prime number is a positive integer greater than 1 and divisible only by 1 and itself.

Example
5 7 11 13 17 19 23 29 31 37 41 43 47
59 61 67 71 73 79 83 89 97...

Video player controls: 0:48 / 7:02, Speed 1.0x, HD, etc.

In this course, we learn mysterious world of prime numbers. Prime numbers are friendly, and have many interesting properties. There are many interesting open problems. To begin with, let us recall the definition of prime numbers.

A prime number is a positive integer greater than 1 and divisible only by 1 and itself.

For example, 2,3,5,7 are prime numbers. But 4,6,8,9 are not prime numbers. Here is a list of 25 prime numbers up to 100. Look at this list. Do you see any rules or laws behind prime numbers?

Download options for the video and transcript:

- Video**
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- Transcripts**
Download SubRip (.srt) file
Download Text (.txt) file
- Handouts**
Download Handout

先生が希望すれば資料もダウンロード可能。

Let's talk about Week 1 Lecture Videos **講義ビデオ、読み上げ原稿はダウンロード可能。**

STAFF DEBUG INFO

問題の画面例1: Yes/No、多肢選択、自由記述等のツールが利用できます。

edX KyotoUx: 004x Fun with Prime Numbers: The Mysterious World of Mathematics Help m0t0k0

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Week 1 > Introduction to Prime Numbers > Problem (7-8)

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Problem (7-8)

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Problem 7

1.0 point possible (graded)

The twin prime pairs between 50 and 100 are (A, B) and (C, D). Write a prime number in each of the blanks in ascending order.

A:

B:

C:

この問題を表示

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Completion Checklist 1

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Question 1

1.0 point possible (graded)

Did you participate in the Entrance Survey in "Introduction"?

Yes

No

Submit You have used 0 of 2 attempts

Save Show Answer

講義ビデオを視聴したかの確認問題(単記式)も実施することができます。

問題の画面例2: edXでは他にも多くの問題作成用ツールが用意されています。

利用可能なツールの例

一般的な問題作成ツール

- 空欄補充問題 (Blank Common Problem)
- チェックボックス (Checkboxes)
- ドロップダウン (Dropdown)
- 多肢選択式 (Multiple Choice)
- 数値入力 (Numerical Input)
- テキスト入力 (Text Input)

特殊な問題作成ツール

- 空欄補充問題 (Blank Advanced Problem)
- コンピュータ言語の入力 (Custom Javascript Display and Grading)
- パイソンを用いて独自の評価をする問題 (Write-Your-Own-Grader Problem)
- 回路図問題 (Circuit Schematic Builder Problem)
- ドラッグ & ドロップ (Drag and Drop)
- 画像選択式 (Image Mapped Input)
- 数式入力 (Math Expression Input)
- LaTeX入力 (Problem Written in LaTeX)
- 化学構造作成 (Molecular Structure)
- ピアアセスメント (Peer Assessment)
- ヒント表示 (Problem with Adaptive Hint)

edX KyotoUx: 001x The Chemistry of Life

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Week 7 > Problems 7-8 > Problem 8 - Peptide Synthesis Reaction

Problem 8 - Peptide Synthesis Reaction

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Problem 8
5.0 points possible (graded)

PEPTIDE SYNTHESIS REACTION

Drag each chemical structure to their corresponding name to complete the formation of an amide bond.

(R₁ corresponds to the first amino acid side chain while R₂ corresponds to the second amino acid side chain)

Amine + Carboxylic Acid + Condensation Reagent (DIPCDI) + Base (DIPEA) → Amide + Urea

Submit You have used 0 of 2 attempts

**After answering the problem, click "Save" first then click "Final Check" to have your score computerized.*

問題の画面例3: 化学式の作成ツールと、学生間のピアレビューツール(上杉教授の授業で利用)

Week 11-12 > Homework 2: Idea for a Research Project > HOMEWORK 2: IDEA FOR A RESEARCH PROJECT

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HOMEWORK 2: IDEA FOR A RESEARCH PROJECT

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HOMEWORK 2: IDEA FOR A RESEARCH PROJECT

0 point possible (ungraded)

Based on the content of the lectures, come up with your own idea about new ways to use amino acids, proteins, small molecules or fluorescence and illustrate your idea with diagrams as follows:

STEP 1: Use [Molecular Editor](#) to draw a chemical structure (optional)
STEP 2: Use the provided drawing tool to illustrate your idea (mandatory)
STEP 3: Save your homework image as a JPEG or PNG file
STEP 4: Submit your image file (next page)

STEP 1: DRAWING OF A CHEMICAL STRUCTURE (OPTIONAL)

If needed for your idea, draw a chemical structure in the window below using [Molecular Editor](#) (optional). You can find a tutorial about how to draw and edit molecules [here](#).

Molecular Editor

JSMSE Molecular Editor by Peter Ertl and Bruno Gantner

Transfer from editor

化学式作成ツール

タイトルや説明を加え、提出

STEP 3: SAVING YOUR HOMEWORK

Enter the name of your idea in the title section (max of 70 characters) and provide a short description of your drawing in the summary section (max of 100 words). Click "Save Homework" to save your file (JPEG or PNG format) and "Check" to finalize the step.

edX Username

Title (max of 70 characters)

Summary (max of 100 words)

Save Homework