



# **Degree Project Course, Introduction**

## **MSc of Engineering, Master Degree**

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## Prerequisites

To begin the degree project:

MsC of Engineering (Civilingenjör) at least

- 210 credits of studies for a 270 hp program
- 240 credits of studies for a 300 hp program.

Master: at least 60 credits of studies for a 120 hp program.

These requirements are checked by the administration before the student is registered for the degree project course and can begin the course.



## Degree project course

- Starts two times per year:
  - 1 period (Aug/ Sept)
  - 3 period (Jan)

Students start 3-4 months earlier in order to find a project

## Before course starts (in Jan)

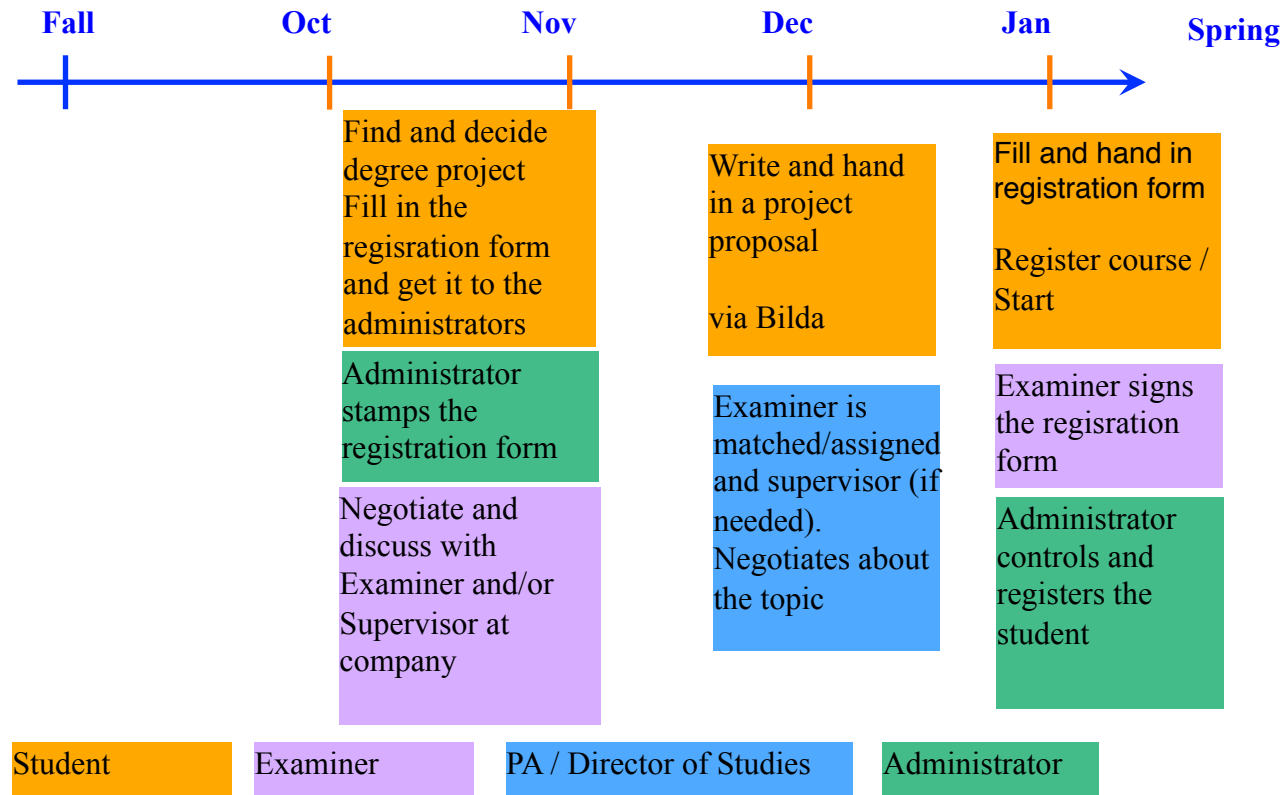


Figure. Start-up phase for degree project, Fall - Spring.



## @ICT- school

Task order:

Find a degree project

Registration form

Write a project description (project proposal)

– Negotiate! AND/ OR – Hand it in!

*@another KTH-school* – talk to them – follow their routines! May have a start early in January!



# @ICT-school

## Get an registration form approved

Fetch the registration form via:

<https://intra.kth.se/administration/blanketter/utbildning>

Fill it in

Take the registration form to the administrators

Get a stamp!

*Then :*

Upload a copy of the registration form in Bilda system  
& Give it to the examiner



BLANKETT

Dnr

Blankettkod:

Reviderad datum

UT-EXAR

2016-11-14

Ansvarig avdelning

UF/PLU

## ANSÖKAN OM EXAMENSARBETE, DEL 1/APPLICATION FOR DEGREE PROJECT, PART 1

Fylls i av studenten/*To be filled in by the student*

Förnamn/ <i>First name</i>	Datum/ <i>Date</i>
Efternamn/ <i>Surname</i>	Personnummer/ <i>Civic registration number</i>
E-postadress/ <i>E-mail</i>	
Program vid KTH/ <i>Programme at KTH</i>	
Planerad start för examensarbete/ <i>Degree project is planned to start</i>	
<input type="checkbox"/> Jag godkänner publicering via DiVA/ <i>I accept publication via DiVA</i>	
<input type="checkbox"/> Jag godkänner inte publicering via DiVA/ <i>I do not accept publication via DiVA</i>	
Signatur student/ <i>Signature student</i>	

Stamp  
&  
Signature



# Registration form

Make sure that you got right code

Different for:

- **A/F**

- **P/F**

<https://www.kth.se/social/group/degree-projects-ict-/page/course-codes/>





## Information about Degree Project course

Find more information about degree project:

<https://www.kth.se/social/group/degree-projects-ict/>

Forms: Application form, Project Proposal, Thesis, Opposition etc:

<https://www.kth.se/social/group/degree-projects-ict-/page/forms-application-form-project-proposala/>

KTH Social Group web:

<https://www.kth.se/social/group/degree-projects-ict/>

I Bilda -> that will become Canvas:

Examensarbete / Degree projects, ICT-skolan/ ICT-School  
2017



⚙ My settings



## Overview

News feed

Calendar

General ▲

Grants from KTH Opportunities Fund

Lectures - Recorded

Course codes, Degree projects ▼

Forms: Application form, Project Proposal, Thesis, Opposition

Assessment template, Degree projects

Examiners

Dates for Presentation and Opposition

Announce /Find opponent for degree project

Presentation seminar

Generate a cover for master thesis

# ICT Degree projects, Master-level (Examensarbete, Master)

**Degree project for master students, advanced level, 30 credit points (Examensarbete för masterstudenter, 30 hp)**

*This information is for students that are going to attend a degree project course.*

**Lecture from fair 2016:**

[Master Degree Project, Introduction Lecture 12/10 2016](#)

**Lecture Spring 2016:**

[Lecture Tue 19/1 15-17](#)

[Link - Recorded Lectures](#)

[Working material - Master Theses Case 1-3](#)

[Possible solutions Case 1-3](#)

**EXTRA:** Academic Resource Center (ARC) provides support for developing and improving degree projects skills, like academic writing and information retrieval. The center also provides career coaching, see link:

<https://www.kth.se/en/kthb/kurser-och-stod/stod/arc>

**Information in English / Information på engelska**

*For information in Swedish, see <https://www.kth.se/social/group/examensarbete-ict-sk/>*



(EXAMENSARBETE, MASTER)

⚙ My settings



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Calendar

General ▲

**Grants from KTH  
Opportunities Fund**

# Grants from KTH Opportunities Fund

Edit

More ▾

## Apply for a grant from KTH Opportunities Fund

Thanks to donations from alumni and friends of KTH, KTH Opportunities Fund is able to support student projects and initiatives. All KTH students at the undergraduate, master's and doctoral level are able to apply for funding from KTH Opportunities Fund.

[Apply here >> Apply for money](#)



# Student activities /seminars

w 0 – Registration form (fill-in, signatures, hand in)

w 1 – Summary, Abstract, Outline /Table of Contents

w 5 – Introduction

w 8 – Research Methodology

w 8 – Proposal seminar

w 13 – Main thesis

w 16 – Conclusions

w 18 – Preliminary thesis

w 19 – Thesis to opponent

w 20 – *Presentation seminar/ Opposition seminar*

w 21 – Final version of the thesis + evaluation template



# Work Phase

*21 weeks of work (number of weeks, not calendar weeks)*

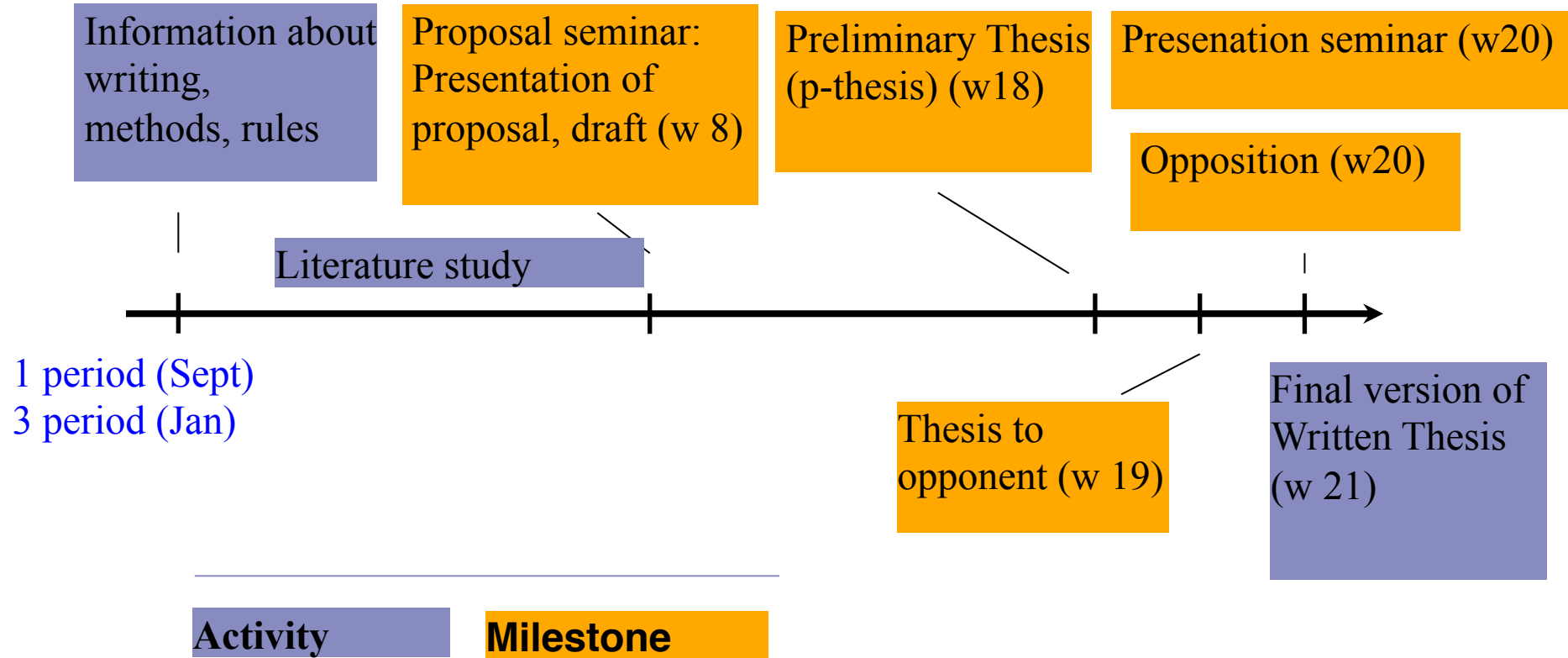


Figure. Activities and milestones of degree project (*Ends in Jan or June*)



# Activities

**Information: writing, methods, rules.** How to write a master thesis, how to choose methods for conducting the degree project, and the rules that govern the conduct of a degree project. (*Lectures, books, Web*)

**Literature study.** Essential for all degree projects and identifies required background and related work. The literature study is carried out in the beginning of the degree project and, typically, the literature study takes about four weeks. It shall be continued throughout the course.

**Written thesis.** The written thesis is the degree project most important part. It is a third of the grade of the degree projects and is a tool for judging the process.



# Milestones

## **Proposal seminar and draft of the thesis (8th week).**

A first draft of the thesis is to be delivered to the examiner. The draft *should* include the result of the literature study and an outline of the entire thesis.

## **Preliminary thesis (18th week).**

The preliminary thesis is meant to be the complete thesis *before* getting comments from the examiner, and the opponent is involved. The preliminary thesis shall be delivered to the examiner *before* week 18 ends.



# Milestones

**Thesis to Opponent.** When no major revisions of the written thesis are required, the preliminary thesis is given to the opponent.

If possible, the comments from the examiner are already addressed in the thesis that is given to the opponent.

**Final Thesis.** The final thesis, at the very latest, 1 week after the degree project has been presented (that is, 21 weeks).

Must address the revisions required by the examiner and the opponent.

A short summary of how the comments from examiner and opponent have been addressed in the thesis should be given.





# Milestones

**Opposition.** Must be opponent of another master thesis. The critical comments from the opponent *should improve* the written thesis;

the opponent must demonstrate that he/she is able to *reflect on, evaluate, and critically review* the work of another student.

An opposition report - that evaluates and critically reviews the preliminary thesis and suggests improvements (language, structure, content, and so on)

- *must be submitted* to the student and own examiner, as well as to the examiner of the opponent's degree project examiner of the opposed degree project, at least, one day before the seminar, (for grading).



# Milestones Presentation seminar

**Oral presentation.** The student contacts the examiner sufficiently early so that the time for the presentation can be *agreed between student, examiner, and opponent and the opponent's examiner.*

The student's examiner announces, well in advance of the seminar, the date and place together with a short abstract.

*If confidential material* - it is possible to produce two documents: one for the company *including* confidential material; the other for KTH *excluding* the confidential material. KTH grade and archive and so on only the document without the confidential information.



# Milestones Presentation seminar

**45 minutes:**

- 1) 20 minutes presentation
- 2) 15 minutes opposition (if 2 opponents - split the time between the opponents. Do not repeat each others comments.)
- 3) 5-10 minutes for active listeners/ public. At least one question per active listeners

**Use time wisely!**



## 2 seminars - active listeners

Decide to become active listeners

Contact the student's examiner and ask for participation

Ask the student(s) for a copy of the thesis

Read the thesis

Ask – at least – well-founded one question

Seminars - *Not Count* as active listeners seminars:

1) Own presentation seminar

2) Own opposition seminar

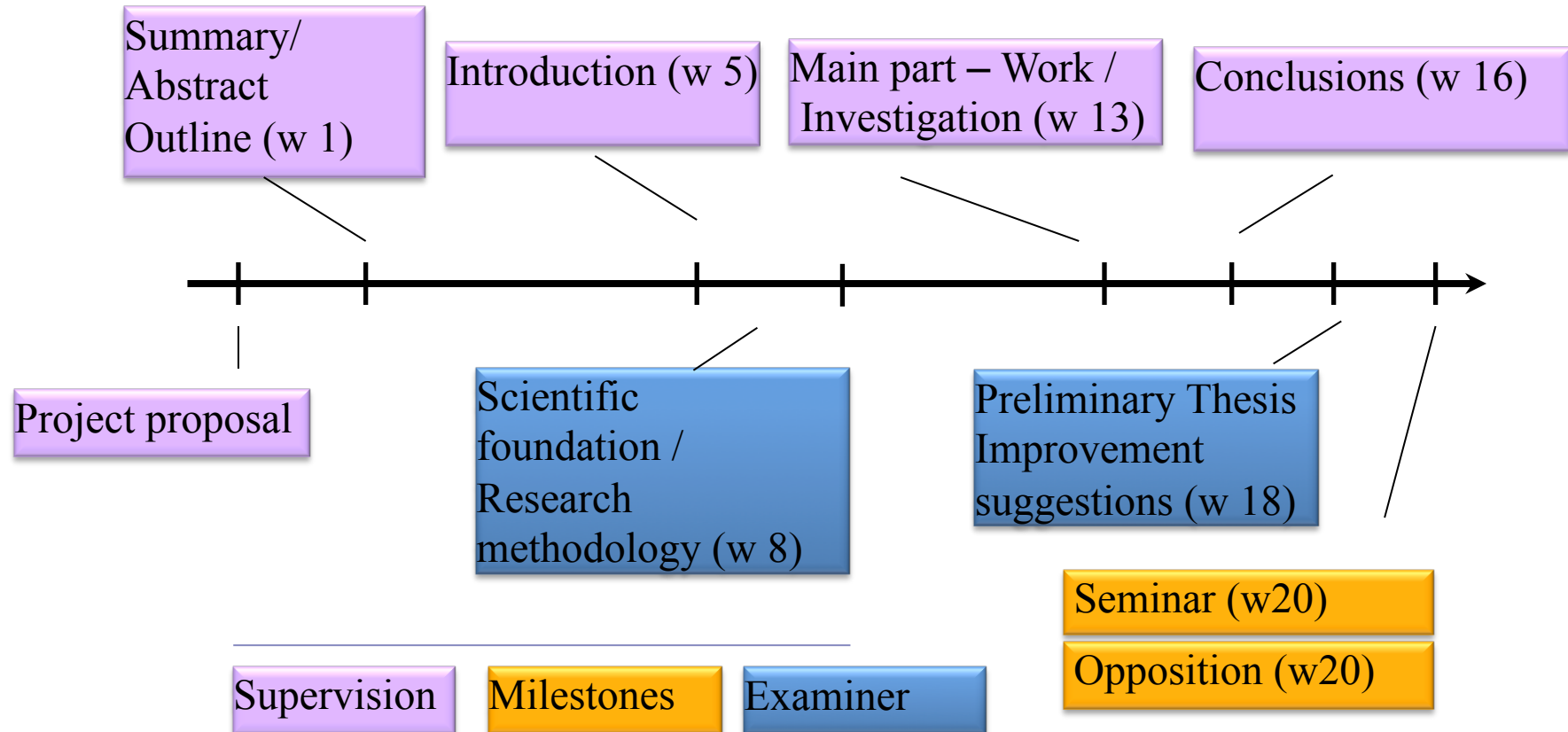


# Checkpoints / Seminars with supervisors - examiners

Several checkpoints and compulsory seminars:

- Summary, Abstract, and Outline/ Table of contents
- Introduction
- Research Methodology
- Main thesis
- Conclusions
  - Presentation seminar
  - Opposition seminar

## Supervision matches the working phases



Figur 3. Supervision /Seminars with supervisor and students.



# Supervisor – Examiner

w 1 – Summary, Abstract, Outline /  
Table of Contents

w 5 – Introduction

w 8 – Research Methodology

w 13 – Main part of the thesis

w 16 – Conclusions, Discussion and  
Future work

w 20 – Presentation seminar/  
Opposition seminar

w 8 - Proposal seminar

w 18 – Preliminary thesis

w 20 - Presentation seminar/  
Opposition seminar



**w 21 –**

**Final version of the thesis &  
Opposition report**

**-> TurnItIn / URKUND**





## Alterations in process

The degree project shall follow the guidelines *closely* as well as the dates for the milestones.

If there is a *need to deviate* from the original plan, then the student must request approval from the examiner (and supervisor, if applicable) well before modifying the original plan.

**Any unplanned and non-negotiated deviation reduces the grade. Moreover, the examiner and supervisor are only available during the course.**



# For success

## **Regular meetings.**

It is recommended to have regular meetings between examiner, supervisor, and student.

Discuss the progress of the thesis and, possibly, refining the plan for the remainder of the degree project.

## **Writing process.**

The approach to writing consists in continuously developing, refining, and extending the written material. It is important to continuously work on the written thesis. Any intermediate result of the degree project should be put in the draft so that nothing is lost.



## **Degree project goals – must be fulfilled!**

- 11 goals for civil engineering programs
- 10 goals for master programs

The Higher Education Ordinance

<http://www.uhr.se/sv/Information-in-English/Laws-and-regulations/The-Higher-Education-Ordinance/>



## **Assessment template – Goals for degree projects**

An assessment with description of how goals have been achieved shall be handed in – not later than – the last version of the thesis.

Together with the assessment, hand in a description of the changes that have been made after the comments from the examiner and the opponent.



## Degree project goals (selected)

- Be able to apply relevant knowledge and skills within a technical area to a given problem.
- Within given constraints, even with limited information, be able to independently analyze and discuss complex problems and handle large problems on an advanced level in a technical area.
- Reflect on, evaluate, and critically review their own and others' scientific results.
- Be able to document and present their own work, for a given audience, following strict requirements on structure, format, and language.
- Be able to identify the need for further knowledge and continuously develop their own knowledge.

**-> All goals in evaluation template**



## Lectures, recorded

<https://www.youtube.com/watch?v=ry-j98hy1zk&index=6&list=PLVfhkUBOcIBFaUb0z1owZCVcHgO4JY8CW>

<https://www.youtube.com/watch?v=uIDfEF8ePp8>



# Abstract (1 eng – 1 swe)

Short, concise and readable summary of the thesis:

- Mention the research/working area (2-3 sentences)
  - Problems (addressed and solved in the thesis)
  - Mention the Study /Developed artefact
  - Summarise the major results
  - Provide major implication of your work
    - \* 2 versions: In English and Swedish
- NOTE – not Google translate!**



# Abstract

Length should be ~ 1-2 paragraphs, approx. 150-200 words.

No citations.

Title should not be repeated.

Be explicit.

Answers the questions:

- In which area did you work? What did you do?
- Which question are you answering? Why did you do it?
- What are the results? What did you learn?
- What are the implications? Why does it matter?





# Summary

Summarizing the whole thesis

- Short description of research/working area
- Problems (addressed and solved in the thesis)
- Study /Develop artefact
- Summary of the major results
- Major implication of your work



# Summary

Length should be max one A4 page, approx. 400 words.

Citations can be used but sparsely

Information in title should not be repeated.

Be explicit.

Answers the questions:

- In which area did you work? What did you do?
- What question were you trying to answer? Why did you do it?
- How did you do it? How did you make it happen?
- What are the results? What did you learn?
- What are the implications? Why does it matter?



# Outline / Table of Contents

- Describe sections in the thesis
- One section at the time: Chapter 2 presents..., Chapter 3 gives..., Chapter 4 describes...

## ***NOT:***

- Introduction section
- Reference section
- Appendices

## Table of Contents

- Structure of the thesis
- List headings and subheading (with page numbers)



# Questions

