



Multibhashi



Review 4



Class Objective

To revise the concepts done so far.



Concept A: Genitiv

Genitiv Case zeigt Besitz, der das fragliche Substantiv mit `s markiert (oder im Plural, das gerade in s endet)
Z.B- Michael is showing us his house:

Das ist das Haus meiner Familie. Hier ist das Schlafzimmer meiner Eltern und hier ist das Arbeitszimmer meiner Mutter. Das Zimmer meiner Schwester ist größer als das Zimmer meines Bruders.



Concept A: Genitiv

(This is my family's house. Here is my parents' bedroom and here is my mother's study. My sister's room is bigger than my brother's room.)

(Shows possession through the genitive case, which marks the noun in question with " 's" (or in a plural already ending in "s")
(for eg. my brother's book , man's auto)

.



Concept A: Genitiv

	Bestimmter Artikel	Unbestimmter Artikel
Maskulin	des Vaters	eines Vaters
Feminin	der Mutter	einer Mutter
Neutrum	des Kindes	eines Kindes
Plural	der Eltern	Eltern



Concept B : Degrees of Comparison

1) **Positiv:**

Max ist intelligent.

Sara ist hübsch.

Familie Stein ist reich.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS
1955

1955 **1955**

1955 **1955**

1955 **1955**

1955 **1955**

1955 **1955**

1955 **1955**

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 441: ADVANCED TOPICS IN SIGNAL PROCESSING
LECTURE 1: INTRODUCTION TO THE COURSE

1.1 COURSE OBJECTIVES

1.2 COURSE STRUCTURE

1.3 COURSE MATERIALS

1.4 COURSE SCHEDULE

1.5 COURSE FACULTY

1.6 COURSE CONTACTS

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 440: ADVANCED TOPICS IN SIGNAL PROCESSING
LECTURE 1: INTRODUCTION TO ADVANCED TOPICS

TOPIC 1: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 2: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 3: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 4: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 5: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 6: ADVANCED TOPICS IN SIGNAL PROCESSING

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 440: ADVANCED TOPICS IN SIGNAL PROCESSING
LECTURE 1: INTRODUCTION TO ADVANCED TOPICS

TOPIC 1: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 2: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 3: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 4: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 5: ADVANCED TOPICS IN SIGNAL PROCESSING

TOPIC 6: ADVANCED TOPICS IN SIGNAL PROCESSING

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 441: DIGITAL SIGNAL PROCESSING
LECTURE 10: DISCRETE-TIME FOURIER TRANSFORM

1.1. DISCRETE-TIME FOURIER TRANSFORM

1.2. DISCRETE-TIME FOURIER TRANSFORM

1.3. DISCRETE-TIME FOURIER TRANSFORM

1.4. DISCRETE-TIME FOURIER TRANSFORM

1.5. DISCRETE-TIME FOURIER TRANSFORM

1.6. DISCRETE-TIME FOURIER TRANSFORM

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 441: DIGITAL SIGNAL PROCESSING
LECTURE 10: DISCRETE-TIME FOURIER TRANSFORM

1.1. DISCRETE-TIME FOURIER TRANSFORM

1.2. DISCRETE-TIME FOURIER TRANSFORM

1.3. DISCRETE-TIME FOURIER TRANSFORM

1.4. DISCRETE-TIME FOURIER TRANSFORM

1.5. DISCRETE-TIME FOURIER TRANSFORM

1.6. DISCRETE-TIME FOURIER TRANSFORM

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 441: DIGITAL SIGNAL PROCESSING
LECTURE 10: DISCRETE-TIME FOURIER TRANSFORM

1.1. DISCRETE-TIME FOURIER TRANSFORM

1.2. DISCRETE-TIME FOURIER TRANSFORM

1.3. DISCRETE-TIME FOURIER TRANSFORM

1.4. DISCRETE-TIME FOURIER TRANSFORM

1.5. DISCRETE-TIME FOURIER TRANSFORM

1.6. DISCRETE-TIME FOURIER TRANSFORM

THE UNIVERSITY OF CHICAGO
CHICAGO, ILLINOIS
1955

1955 **1955**

1955 **1955**

1955 **1955**

1955 **1955**

1955 **1955**

1955 **1955**

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 440: ADVANCED TOPICS IN SIGNAL PROCESSING
LECTURE 1: INTRODUCTION TO THE COURSE

1.1 COURSE OBJECTIVES

1.2 COURSE STRUCTURE

1.3 COURSE MATERIALS

1.4 COURSE SCHEDULE

1.5 COURSE FACULTY

1.6 COURSE CONTACTS

THE UNIVERSITY OF CHICAGO
INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL ENGINEERING
EECS 441: DIGITAL SIGNAL PROCESSING
LECTURE 10: DISCRETE-TIME SYSTEMS

1.1. INTRODUCTION

1.2. DISCRETE-TIME SYSTEMS

1.3. SUMMARY

1.4. DISCRETE-TIME SYSTEMS

1.5. DISCRETE-TIME SYSTEMS

1.6. DISCRETE-TIME SYSTEMS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY
PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY

PHYSICAL CHEMISTRY