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# C Programming & Lab

## 3. Variables and Types

### Practical Exercise

Sejong University

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## [3-5] Data Type Conversion

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- Read an integer from a user. Store it in a variable of int type. Copy it into a variable of char type. Print the two variables.
  - Input the following numbers
  - 10, -10, 100, -100, 200, -200, 500, -500

Display

Input: 10

Output(int)->10

Output(char)->10

- Repeat the above but use unsigned char type instead of char type.

## [3-6]Area of a Rectangle

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- Read the width and length of a rectangle and calculate its area.
  - Display1: Integer input and output
  - Display2: Real number input and output (2 decimal points)

Display1

Width: 4  
Length: 5  
Area->20

Display2

Width: 4.2  
Length: 5.1  
Area->21.42

## [3-6]Round off

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- Round off a given positive real number.

Display1

Input (Real number): 3.5  
Round off (Integer)→4

Display2

Input (Real number): 3.1  
Round off (Integer)→3

## [3-6]Conversion: Lower case $\leftrightarrow$ Upper case

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1. In ASCII table, lower case a~z, upper case A~Z are consecutively listed. Using this property, read a lower case letter, convert to a upper case letter, and print it.

Display

Input (lower case): y  
Output (upper case)→Y

2. Read a upper case letter, convert to a lower case letter, and print it.

Display

Output (upper case): A  
Input (lower case) →a