Class 17

Recursion
Recursion

• It is a function that calls itself for the task

• Rule 1: We must code for base or simplest versions of the task (base case)

• Rule 2: It can only call “simpler” versions of its task (recursive case)

• Advice 1: Trust C++ to do recursion – don’t ask how the value is returned correctly!

• Advice 2: Planning – ask what simpler case can help?

• Advice 3: Coding – try to start by detecting base case
Example 1

• sumDigits
  • recursively sum the digits of an integer
Example 2

- triangle
  - recursively print a triangle
Example 3

- removeFirstDigit
  - remove the first digit of an integer