Introduction to Computing
OBJECTIVES

- What classes, objects, member functions and data members are. (Ch3)
- How to engineer a class to separate its interface from its implementation and encourage reuse. (Ch3)
- To use the break and continue program control statements to alter the flow of control. (Ch5)
- To use common math functions available in the C++ Standard Library. (Ch6)
- How the function call/return mechanism is supported by the function call stack and activation records. (Ch6)
- To use random number generation to implement game-playing applications. (Ch6)
- To write and use recursive functions, i.e., functions that call themselves. (Ch6)

OBJECTIVES (Cont.)

- To use arrays to store, sort and search lists and tables of values.
- To declare arrays, initialize arrays and refer to the individual elements of arrays.
- To use C++ Standard Library class template vector.

Programs Will Consist Of

- Function `main` and
- One or more classes
  - Each containing data members and member functions

Examples used to build a GradeBook class

- PLEASE change to CppHTP5e_03.ppt
- and go to page 9

Standard library function `std::pow`

- PLEASE change to CppHTP5e_05.ppt
- and go to page 34
Break and Continue

- PLEASE change to CppHTP5e_05.ppt
- and go to page 72

C++ Standard Library

- PLEASE change to CppHTP5e_06.ppt
- and go to page 44

Function Call Stack and Activation Records

- PLEASE change to CppHTP5e_06.ppt
- and go to page 98

References and Reference Parameters

- PLEASE change to CppHTP5e_06.ppt
- and go to page 116

Recursion

- PLEASE change to CppHTP5e_06.ppt
- and go to page 162

Arrays

- PLEASE change to CppHTP5e_07.ppt
- and go to page 16

Passing Arrays to Functions

- PLEASE change to CppHTP5e_07.ppt
- and go to page 63

Searching Arrays

- PLEASE change to CppHTP5e_07.ppt
- and go to page 87
C++ Standard Library Class Template \texttt{vector}

- PLEASE change to CppHTP5e_07.ppt
- and go to page 114