

Philip Pesic

Week 7

March 5 2023

Week 7 Q16

1) What is the key characteristic of a functions/methods ?

The returntype, the parameters, and the body.

2) What facts of reality give rise to the need to create functions/methods ?

Programmers are lazy, and using functions saves massive amounts of time over rewriting code needlessly

3) What is the function header ?

A function header is the declaration of the function. It includes the name and returntype.

4) What is the function body ?

The body is the code that will be executed when a function is called.

5) What are system defined functions/methods ?

System defined functions are functions that the system/language supports by default. Many commonly used keywords and commands are actually just functions built into the system/language to make programming easier.

6) What are user defined function/methods ?

User functions are functions that a user/programmer create for their own purposes.

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7) What are the 4 ways to set up a function/methods ?

- 1: void returntype/void parameters
- 2: void returntype/nonvoid parameters
- 3: nonvoid returntype/void parameters
- 4: nonvoid returntype/nonvoid parameters

8) What types of statements can you put in the body of a function/methods ?

You can put any statement, like an if or loop, into a function.

9) Where can you place a function/methods definition ?

Functions are places inside of classes in the “void”, or outside of the entry point function.

10) What is a function/methods argument ?

Arguments, or parameters, are parameters that are passed into a function when they are called.

Typically, a function has variables defined in the parameters, which are then overridden by other variables or values when the function is called.

11) What are the 3 key features of function arguments ?

They can be void/nonvoid

They are overridden by the function call parameters

They are very useful in customizing functions and extending their reusability

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12) Find a website online that has a list of JAVA math predefined functions. List them and the website.

<https://www.gcreddy.com/2021/07/built-in-methods-in-java.html>

Examples:

`compareTo();`

`equals();`

`random();`

13) List 5 different of math functions/methods that are in the predefined 'math' library ?

`sqrt(); cos(); sin(); tan(); abs()`

14) What is the data type behind the Character data type ?

Chars are actually just binary, or integer, values that are then decoded into a visible character.

15) What is the purpose of the main() function in Java ?

The main function is the function that the compiler executes on start. Most directly executed code should be in the main.

16) What is a good website that lists the Java Function libraries and what they do ? (Google it !

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<https://xperti.io/blogs/best-useful-java-libraries/>

This is a list of 20 commonly used libraries