

CS 101 MIDTERM 1 STUDY GUIDE

Disclaimer: This is a guide for studying for the midterm. It is not a guaranteed all-inclusive list of what you might see and should not be used as your sole source for studying. Review lecture, lecture programs, the textbook, notes, and learning material posted on Canvas.

1. Primitive Types

Printing and Java Introduction

- 1.2 Why programming? Why Java?

Creating Variables and Setting Them in Various Ways

- 1.3 Variables and Data Types
- 1.4 Expression and Assignment Statements
- 1.5 Compound Assignment Operators
- 1.6 Casting and Range of Variables

2. Using Objects

About Classes in General/Creating Objects

- 2.1 Objects: Instances of Classes
- 2.2 Creating and Storing Objects (Instantiation)

Calling Methods

- 2.3 Calling a Void Method (Scanner introduced here in the book, we learned earlier)
- 2.4 Calling a Void Method with Parameters
- 2.5 Calling a Non-void Method

Special Classes We Use Often

- 2.6 String Objects: Concatenation, Literals, and More
- 2.7 String Methods
- 2.8 Wrapper Classes: Integers and Doubles
- 2.9 Using the Math Class

Additionally, `System.out.format()` will be on the exam. This is how we can format output by left or right justifying a field, creating a set width of a field to print (i.e. print in an area at least 10 spaces wide), and we can round output.

Additionally, `++i` versus `i++` (discussed in class and practiced in homework) may be on the exam.

I **highly** suggest forming study groups and making up a question for each topic, then trading your study questions to make a practice test. Use the homework questions as a guide on how to phrase questions.

Here a YouTube video on how to study for exams, based on scientifically proven techniques: <https://www.youtube.com/watch?v=ukLnPblffxE&t=1133s>