

COMPSCI 1JC3
Introduction to Computational Thinking
Fall 2017

03a Discussion Session

William M. Farmer

Department of Computing and Software
McMaster University

September 20, 2017



Admin

- “All Questions Answered!” this week in the tutorials.
- Office hours: To see me please send me a note with times.
- Are there any questions?

W. M. Farmer

COMPSCI 1JC3 Fall 2017: 03a Discussion Session

2/4

Review

1. Ariane 5.
2. Number systems
3. Decimal, binary, hexadecimal numeral systems.
4. Machine Integers.
5. Floating point numbers.
6. Numerical types in Haskell.

Characters

- In computing, **characters** represent **graphemes** (the units of a writing system).
- There are now two main ways of representing characters: ASCII and Unicode.
- The **ASCII** (American Standard Code for Information Interchange) character scheme is based on the English alphabet.
 - ▶ There are 128 characters (94 printable, the space, and 33 nonprintable) represented by 7- or 8-bits.
 - ▶ Nonprintable characters are denoted by **escape characters** such as `'\n'` for the newline character.
- The **Unicode** character scheme is intended to represent the graphemes of the world's major writing systems.
 - ▶ More than 130,000 characters from 139 writing systems.
 - ▶ The characters are represented by 8-, 16- or 32-bits.

W. M. Farmer

COMPSCI 1JC3 Fall 2017: 03a Discussion Session

3/4

W. M. Farmer

COMPSCI 1JC3 Fall 2017: 03a Discussion Session

4/4