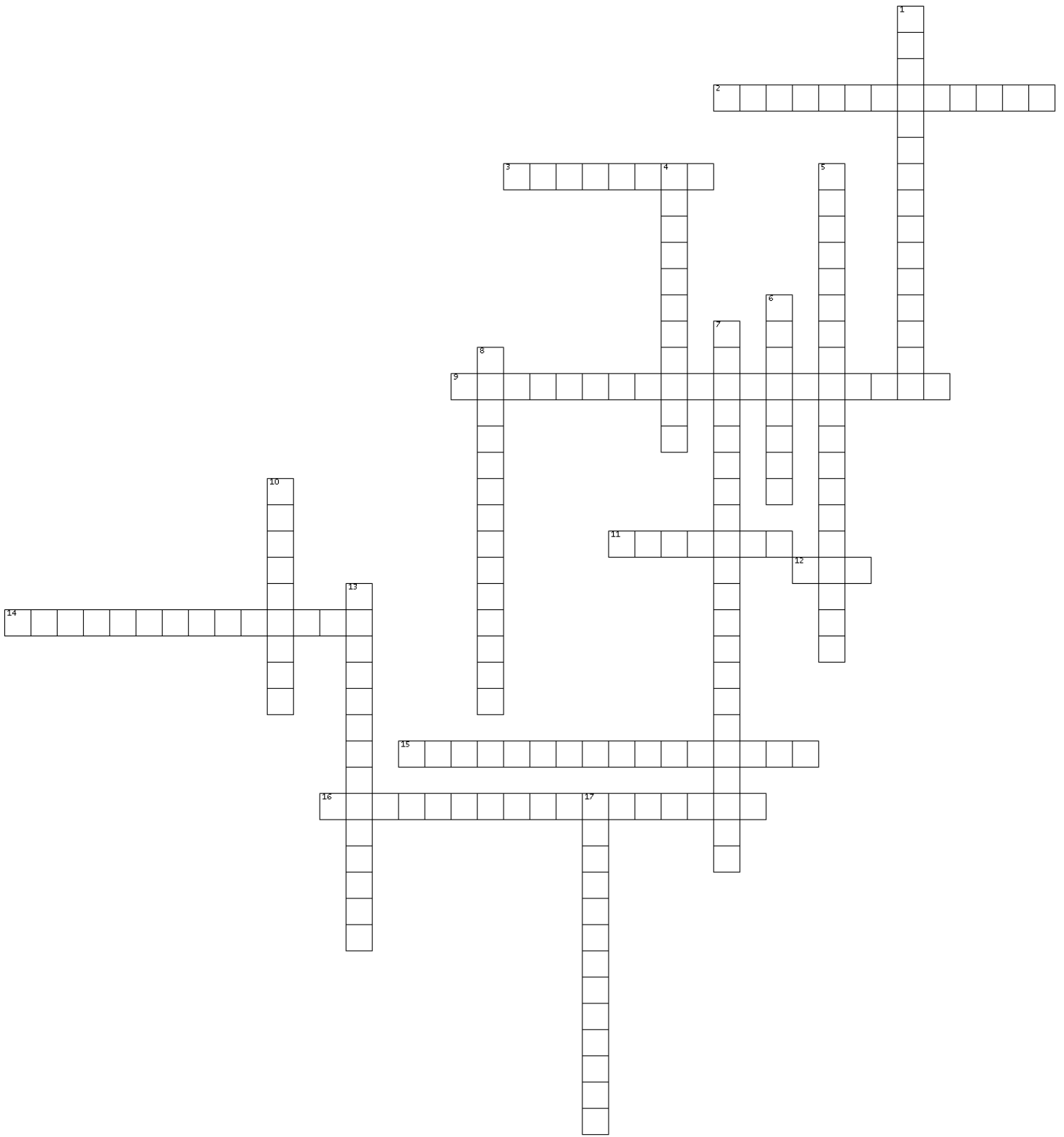# CS 210 Principles of Computer Organization
Chapter 1 & Chapter 2.1 Review

Note: some definitions may result in a term consisting of multiple words. Write the word with letters consecutively. For example, "operating system" would be filled in as "operatingsystem"

ACROSS

2. the process of running two operands through the ALU and storing the result

3. consists of registers, ALU, and several busses to form the path along which data flows from the registers to the ALU and back

9. a register which holds the instruction currently being executed

11. sequence of instructions describing how to perform a certain task

12. a collection of parallel wires for transmitting address, data, and control signals

14. a system with more than one CPU sharing common memory

15. mechanical invention of Charles Babbage built in 1834 that could add, subtract, multiply, or divide

16. a basic design which consists of memory, control unit, arithmetic logic unit, input, and output; the basis for nearly all digital computers

DOWN

1. a computer's primitive instructions

4. a method of executing a program written in language L1 by replacing each instruction in it by an equivalent sequence of instructions in language L0, resulting in a program in L0, which is then executed

5. performs addition, subtraction, and other simple operations on its input to yield a result in the output register

6. a concept used to fetch, decode, and execute instructions in parallel by dividing instruction execution into stages that are each handled by a dedicated piece of hardware

7. the 'brain' of the computer, responsible for executing programs stored in main memory by fetching their instructions, examining them, and executing them one after the other

8. a method of executing a program written in language L1 by examining each instruction and executing the equivalent sequence of instructions in language L0 directly, without generating a program in L0

10. empirical observation that the number of transistors that can be put on a chip doubles every 18 months

13. a register of the CPU which points to the next instruction to be fetched for execution

17. a system with more than one CPU such that each has its own private memory