

# Introduction: Hello, World Below

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## From Tetris to Nand, Slides

1. Slide 5: Name two purposes of an abstract interface.
2. Slide 7: What is the purpose of a library (OS method)?  
Describe an example of a library.
3. Slide 9: Is a virtual machine restricted to a single high-level language?  
Relate this model to a Linux system with C, C++, FORTRAN, and Ada compilers.
4. Slide 11: The virtual machine uses what architecture?  
What is the pre-condition for executing an `add` instruction?
5. Slide 14: Distinguish the location of a variable from its value.  
In the assignment `sp = sp + 1`, which is the value reference and which is the location reference?  
Relate array usage to the notions of location and value.
6. Slide 15: Distinguish machine language from assembly language.  
If I open a machine language file in an editor, what will I see?
7. Slide 17: What part of a processor parses instructions?  
What part of a processor executes instructions?
8. Slide 18: Distinguish architecture from organization.  
Describe three aspects of a processor's architecture.  
Describe three aspects of a processor's organization.
9. Slide 20: Distinguish between combinational and sequential logic.
10. Slide 21: What is the difference between OR and XOR?
11. Slide 23: Why do we say that the NAND gate is complete?
12. No slide: Could we treat the virtual machine language as a machine language and build the virtual machine from gates?