Homework 1

1. The difficulty with analog is that there is a lot of noise, meaning a lot of unwanted signals making analog systems hard to predict and control. A situation where one might be acceptable could be a temperature calculator?.

2. It's a bad idea because the voltage value could easily fluctiate around such a specific level so an inteded value of .6V could easily change to .59V, messing up the whole signal

3. ISA: Specfies set of instructions computer can perform, data types
   Ex: ARM, Intel x86
   Microarchitecture: How physical components are put together
   Ex: Core i7, xeon

4. Problem, algorithm, program, ISA, microarchitecture, circuits, Devices
Design choice at the algorithm level determines how fast problem can be solved.
Design choice in the ISA influences if the device will be small with lower power or bigger with more power.

7. ~~overflow~~
   C ~~Answer~~ will generate overflow
   /
   1100+0100
   = 12 + ~~4~~ = 16
   ↓
   10000
   ↓
   5 bits = overflow

   only C