Project02 — go over some code on Tue/wed
negative literals, overflow

ssh Keys → allows you to ssh into
Pi without
scp

ssh Keys setup for GitHub
Time zone
Makeup points
Code quality → can get all points
back
50% back on any other prints

Near term plan   Lab 05 due Mon Sep 28
ARM Assembly   Lab 06 clue Mon Oct 5
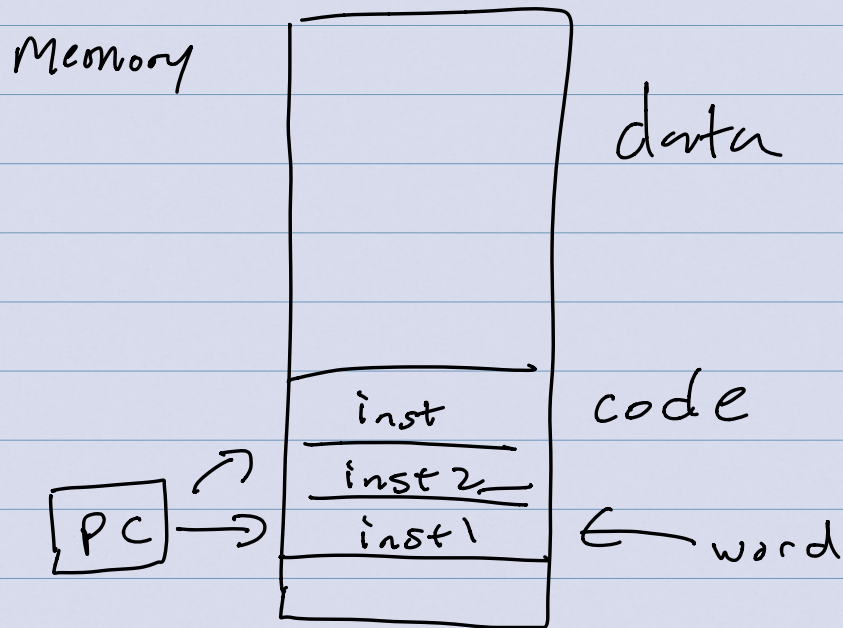   Project02 due Mon Oct 13

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ARM Assembly

Human readable form of
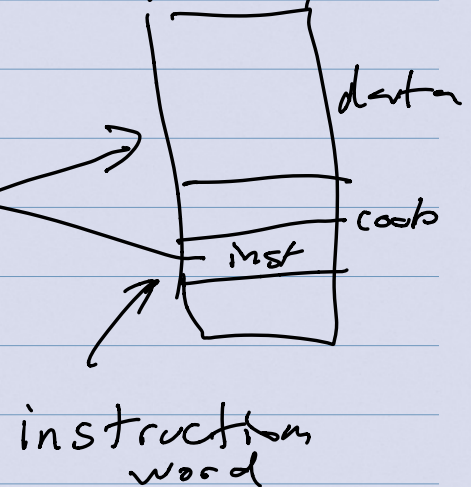ARM Machine code

Word   word size

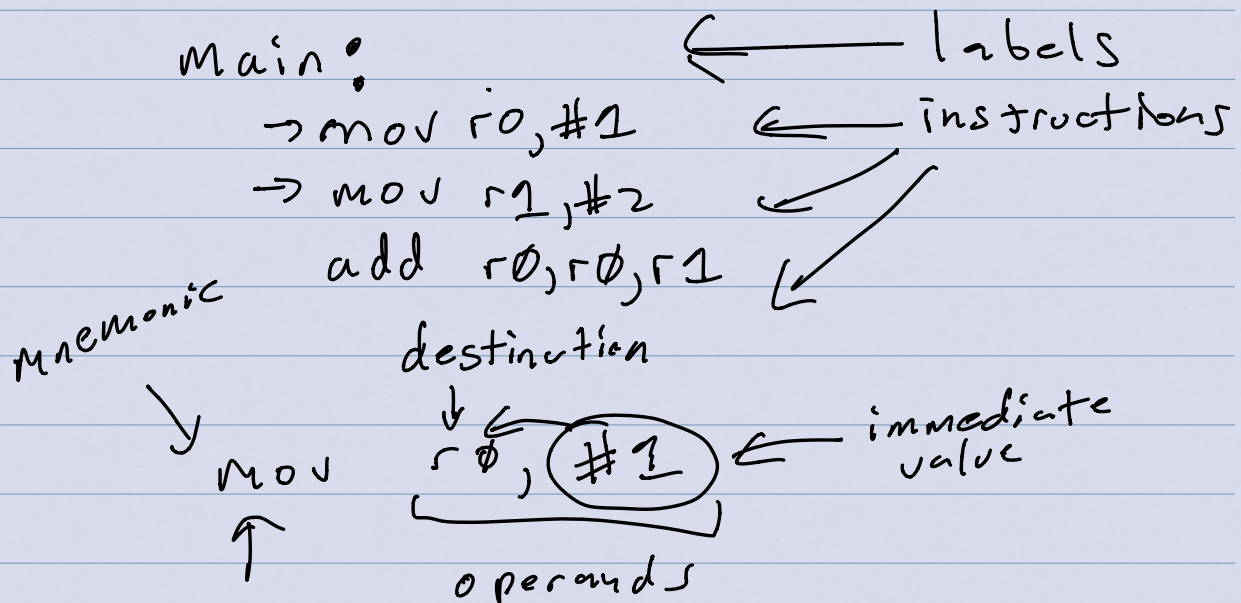32 bits or 64 bits

bytes

Memory

data

inst   code

inst 2

PC → inst 1 ← word

ARM Computer Processor   Registers
                                 as processor
                                 variable
                                 Memory

Registers 16
          regs

add ←   data

str   inst   code

                                             inst

                             instruction
                             word

Assembly Language .S

main:
    → mov r0, #1   ← instructions
    → mov r1, #2
    add r0, r0, r1

← labels

Mnemonic

destination

immediate value

mov   r0, (#1)

operands

instruction set

$$add \quad r0, r0, r1$$
$$r0 = r0 + r1$$

mov r0, (#1) $r0 = 1$
mov r0, r3 $r0 = r3$
add r0, r0, r1 $r0 = r0 + r1$

ARM function calls
First four args   in first four reg

$$[r0, r1, r2, r3] \quad 16$$

$\boxed{\text{PC}}$ program counter

$\boxed{\text{LR}}$ linke resister

$r4, r5, r6, r7$