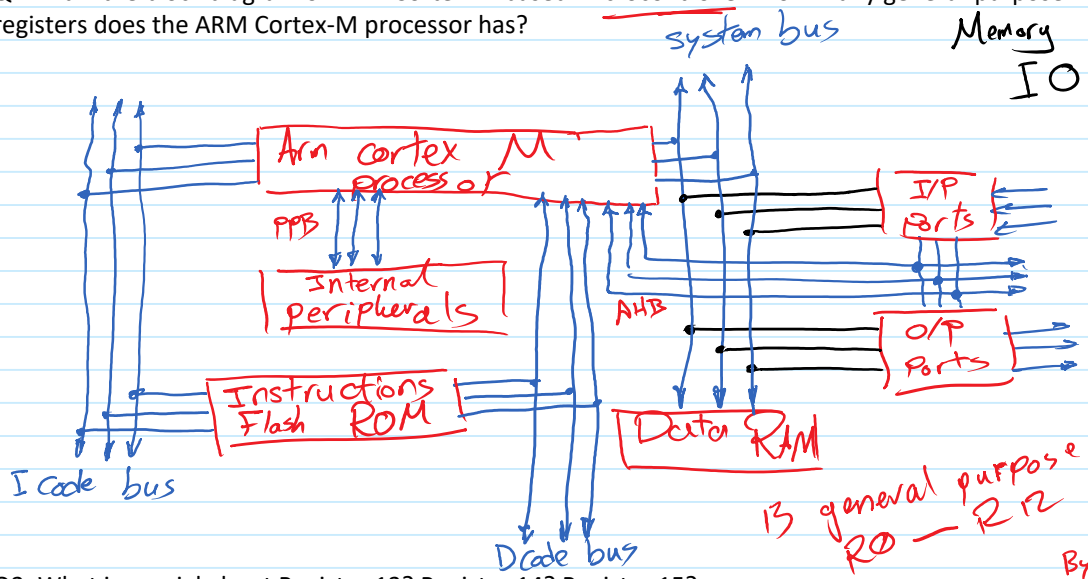
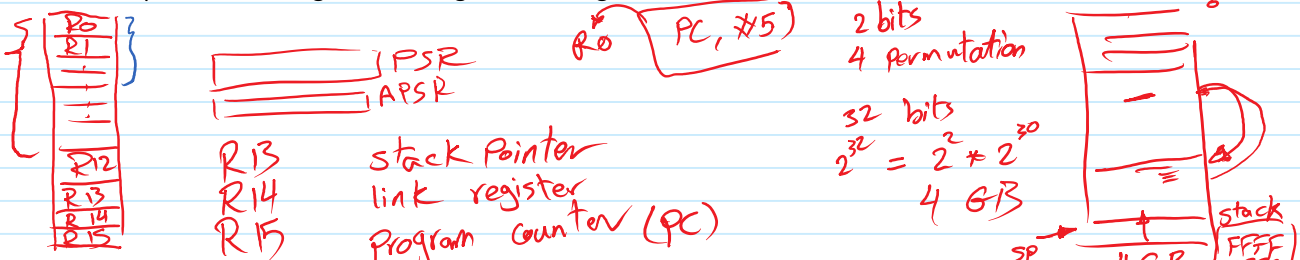
Tutorial 2

Tuesday, April 6, 2021 12:30 PM

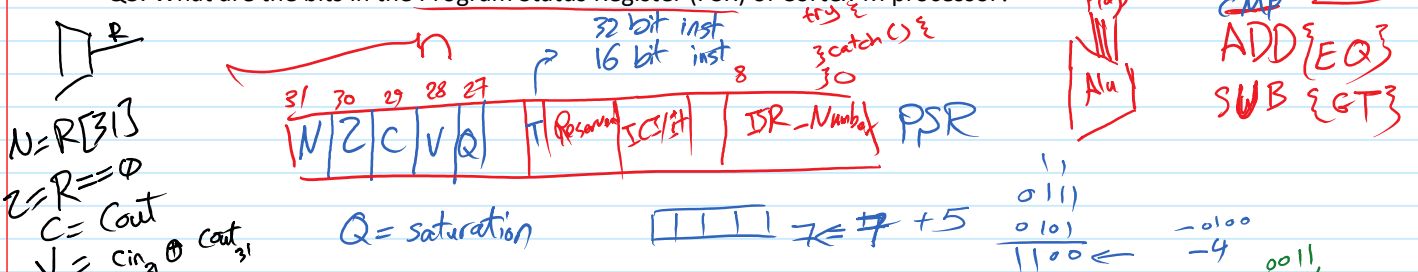
Q1. Draw the block diagram of ARM Cortex-M based Microcontroller. How many general-purpose registers does the ARM Cortex-M processor has?



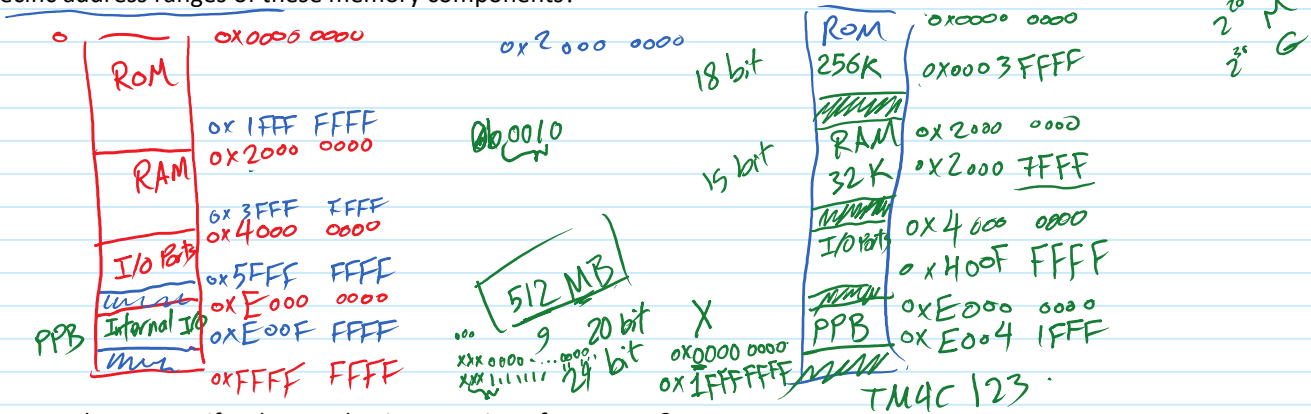
Q2. What is special about Register 13? Register 14? Register 15?



Q3. What are the bits in the Program Status Register (PSR) of Cortex-M processor?



Q4. Draw the memory map of TM4C123? How much RAM and ROM are in TM4C123? What are the specific address ranges of these memory components?



Q5. How do you specify where to begin execution after a reset?

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SP = value @ address 0
PC = value @ address 4
LR = 0x FFFF FFFF

connect power
reset

Q6. What does word-aligned and halfword-aligned mean?

address divisible by 4
bits ..xxxx00

address must be divisible by
bit ..xx0