# Exam Prep

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# February 6, 2020

Bring Calculator, Cheatsheet (1 page), datasheets are provided

#### 1 What to Know

# 1.1 C Language

- Know layout of C source file
- Some data types and how they work
- How arrays word, pointing to the start of a block of memory
- Standard C Operators: Math, Unary, Relational, Bitwise
- How to analyze C program flow

# 1.2 Data Representations

- Integer representations, converting between bases and formats
- Unsigned integer, Signmagnitude integers, Two's complement integer
- Binary coded Decima, Hexidecimal
- Fractional Number representation (Convert to and from float)

### 1.3 MSP430

- Little endianess (Lower byte of each word is stored first)
- For double words, the lower word is stored before the higher word
- Big endian (RISC processesors)
- $\bullet$  Difference between general computing hw/sw and embedded system computing
- Harvard architecture vs Von neumann architecture
- Memory layout of MSP430