## Special Binary

Last updated 1/3/23

These slides introduce special binary number concepts

## **Special Binary**

- The number of bits in a binary word are system dependent
  - 8, 16, 32, 64
- Special binary numbers solve 2 problems
  - Portability between systems
  - Using the minimum memory needed
- There are different nomenclatures for special binary numbers

## **Special Binary**

 We will use the special binary numbers available in <stdint.h>

- 8 bit integers
  - uint8\_t unsigned 8 bit
  - int8\_t signed 8 bit
- 16 bit integers
  - uint16\_t unsigned 16 bit
  - int16\_t signed 16 bit
- 32 bit integers
  - uint32\_t unsigned 32 bit
  - int32\_t signed 32 bit