

CSCI 2330 – Integer Representation Exercises

Fill in the requested values for each of the indicated representations in the specified format (**bin** = binary, **dec** = decimal). For the representations in **n** bits, your answer should be an expression in terms of **n**.

1. Unsigned, 4 bits

- a. Largest (bin)
- b. Largest (dec)
- c. Smallest (bin)
- d. Smallest (dec)

2. Signed Magnitude, 4 bits

- a. Largest (bin)
- b. Largest (dec)
- c. Smallest (bin)
- d. Smallest (dec)

3. Two's Complement, 4 bits

- a. Largest (bin)
- b. Largest (dec)
- c. Smallest (bin)
- d. Smallest (dec)

4. Unsigned, n bits

- a. Largest (dec)
- b. Smallest (dec)

5. Signed Magnitude, n bits

- a. Largest (dec)
- b. Smallest (dec)

6. Two's Complement, n bits

- a. Largest (dec)
- b. Smallest (dec)