



# **CSE 111**

**Fall 2010**

**Exam 1 Review**

# ANNOUNCEMENTS

- Exam 1 – Monday, October 4<sup>th</sup> in lecture



# TOPICS AND READINGS COVERED

- All sections of Chapter 1 in text and section 2.1 in Chapter 2.



# TOPICS OF IMPORTANCE

- Guaranteed questions:
  - Converting between base 10 and base 2
  - Converting between base 10 and base 8
  - Converting between base 10 and base 16
  
  - Binary addition
  - Modulus operation (using it and producing an answer)
  
  - Identify the types of gates in a given circuit
  - Identify the final output of a set of gates given particular inputs



## MORE QUESTIONS (POSSIBLE)

- Questions like: If we use 1 byte for each red, green, and blue value, and the size of the image is 1024x768 pixels, how many bits does it take to store the information about the picture? (You would be given the conversions.)
- Given a boolean expression, write out the truth table for that expression.
- Given a set of gates, what is the boolean expression that the gates compute?
- Given the boolean expression, can you construct the gates?



# LAST QUESTIONS

## (MULTIPLE CHOICE-LIKE)

- Covering any of the terms, definitions and other ideas presented in Chapter 1 and Section 2.1



# ANSWERS TO PRACTICE PROBLEMS FROM PREVIOUS WEEKS

- Converting from Base 2 to Base 10
- $11011 \rightarrow 27$
- $100010 \rightarrow 34$
- $1011100 \rightarrow 92$
- $11010 \rightarrow 26$
- $111001 \rightarrow 57$
- $1000011 \rightarrow 67$



# ANSWERS TO PRACTICE PROBLEMS FROM PREVIOUS WEEKS

- Converting from Base 10 to Base 2
- $23 \rightarrow 10111$
- $95 \rightarrow 1011111$
- $16 \rightarrow 10000$
- $43 \rightarrow 101011$
- $19 \rightarrow 10011$
- $58 \rightarrow 111010$
- $79 \rightarrow 1001111$





# ANSWERS TO PRACTICE PROBLEMS FROM PREVIOUS WEEKS

- Converting from Base 8 to Base 10
- $345 \rightarrow 229$
- $4678 \rightarrow 2496$
- $23 \rightarrow 19$
- $777 \rightarrow 511$



# ANSWERS TO PRACTICE PROBLEMS FROM PREVIOUS WEEKS

- Converting from Base 16 to Base 10
- A34 → 2612
- 56FF → 22271
- EDEC → 60908
- C5 → 197



# ANSWERS TO PRACTICE PROBLEMS FROM PREVIOUS WEEKS

- Converting from Base 10 to Base 8
- $1254 \rightarrow 2346$
- $347 \rightarrow 533$
- $24 \rightarrow 30$
- $6739 \rightarrow 15123$



# ANSWERS TO PRACTICE PROBLEMS FROM PREVIOUS WEEKS

- Converting from Base 10 to Base 16
- $1254 \rightarrow 4E6$
- $347 \rightarrow 15B$
- $24 \rightarrow 18$
- $6739 \rightarrow 1A53$

