15-110 recitation 03

Recap

- Binary numbers and data representation
- if/elif/else statements
- circuits and gates

Reminders!

Check2 due Monday @ Noon!

Problems

decimal -> binary

Problem

Convert 38 to binary using 8 bits.

Convert 101 to binary using 8 bits.

binary -> decimal

Problem

What is 10?

What is 1010100?

What is 11+1? (binary)

practice with boolean expressions

Problem

You are at Disneyland, but each ride has its own restrictions.
Write a boolean expression based on the ride's requirements. An example is given below:

Splash Mountain: You must be over 5ft tall (height) and have an aquatic quotient (AQ) less than 5. → **Boolean expression**: height > 5ft and AQ < 5.

Mad Tea Party (the spinning cups): The sum of the weights of the three people (x_weight, y_weight, z_weight) in the teacup must be no larger than 700 lbs.
Or, number of children (child) should be no more than twice the number of adults (adult).

Space Mountain: You must be in between the age (inclusive) of 4 and 65 (age) and not pregnant (pregnant).

Pirates of the Carribean: Your "argh matey" levels (AM) must be larger than 100 (AM) or an odd number.

circuits and gates

Problem

Part 1: Fill out the truth table

x	y	output

Part 2: Recreate this circuit in logic.ly

isKindaPrime

Problem

Write a function **`isKindaPrime(number)`** that takes in a number and returns `True` if the number is not divisible by 2, not divisible by 3, and not divisible by 5.

Otherwise, output `False`.