

## Problem 1

$$((F(a) \wedge G(a)) \vee (F(b) \wedge G(a)) \vee (F(a) \wedge G(b)) \vee (F(b) \wedge G(b)))$$

## Problem 2

### Part a

The language consisting of strings of either 1 or more a's or strings of 1 or more b's.

### Part b

This is the language that contains strings containing some of a's and b's.

### Part c

This is the language that contains only the empty string.

### Part d

This is the empty language that contains no strings.

## Problem 3

The language consists of strings of at least length 3 which contain a sequence of a's and b's.

