Programming Language Concepts Homework 3

Due Wednesday Oct 2; Joseph Sepich (jps6444)

1 Problem 1

1.1 Part 1

```
L(R) = (a|b)(a|b)(a|b)
```

1. “aaa”
2. “aab”
3. “aba”
4. “abb”
5. “baa”
6. “bab”
7. “bba”
8. “bbb”

1.2 Part 2

```
L(R) = a(aa|bb)*b
```

This set will be infinite, so I will write down the 7 shortest.

1. “aaab”
2. “abbb”
3. “aaaaab”
4. “aaabbb”
5. “abbbbb”
6. “aaaaaaab”
7. “aaaaabbb”

2 Problem 2

Write a regular expression with non empty binaries that start and end with the same digit.

```
L(R) = ((1(1|0)*1)|(0(1|0)*0))
```