Team Assignment 4

Team Number and Initials _____   _____   _____   _____   _____

Construct a regular expression which produces the following languages (assume $\Sigma = \{a, b, c\}$):

1. $\{w \mid w$ begins with a, and ends with c$\}$

2. $\{w \mid w$ contains the string abc$\}$

3. $\{w \mid w$ contains at least one b$\}$

4. $\{w \mid w$ contains exactly one b$\}$

5. $\{w \mid w$ has even length$\}$

6. $\{w \mid w$ has odd length$\}$

7. $\{w \mid w$ contains an even number of as, an even number of bs, or an even number of cs$\}$

8. $\{w \mid w$ has an even number of bs, and each b is followed by at least one c$\}$

9. $\{w \mid w$ has at least three as, or at least two bs$\}$

10. $\{w \mid w$ has at least three as, and at least two bs$\}$

11. Convert the regex $(aa)^* \cup (bb)^*$ to an equivalent NFA.