For each of the following languages over the alphabet \( \Sigma = \{0, 1\} \), either prove the language is regular (by giving an equivalent regular expression, DFA, or NFA) or prove that the language is not regular (using a fooling set argument). Exactly half of these languages are regular.

1. \( \{0^n 1^n \mid n \geq 0\} \)

2. \( \{0^n 1^n w \mid n \geq 0 \text{ and } w \in \Sigma^*\} \)

3. \( \{w0^n 1^n x \mid w \in \Sigma^* \text{ and } n \geq 0 \text{ and } x \in \Sigma^*\} \)

4. Strings in which the number of 0s and the number of 1s differ by at most 2.

5. Strings such that in every prefix, the number of 0s and the number of 1s differ by at most 2.

6. Strings such that in every substring, the number of 0s and the number of 1s differ by at most 2.