**BIT STRING**

Consider a string of 1's and 0's. Chunk this string into adjacent pairs starting at the left and then evaluate each pair. If a pair matches replace the pair with a 0, if it doesn't match replace it with a 1. Repeat this procedure for the new string, etc. until there is only one bit left. Can you find a way to predict what the final bit will be based on the original string?

Consider the following string: **1 1 0 1 0 0 1 1 1 1 0 0 1 0 1**

1 1 0 1 0 0 1 1 1 1 0 0 1 0 1

0 1 1 1 0 1 0 0 0 1 0 1 1 1

1 0 0 1 1 1 0 0 1 1 1 0 0

1 0 1 0 0 1 0 1 0 0 1 0

1 1 1 0 1 1 1 1 0 1 1

0 0 1 1 0 0 0 1 1 0

0 1 0 1 0 0 1 0 1

1 1 1 1 0 1 1 1

0 0 0 1 1 0 0

0 0 1 0 1 0

0 1 1 1 1

1 0 0 0

1 0 0

1 0

1