n = 5, len(sequence) = 100

desired sequence:
TTTTGGGGCCCCGGGGTTTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTTTGGGG
actual sequence:
TTTTGGGGCCCCGGGGTGTTCCCCAAAATTTTGGGGTATTGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTCTGGGGTTTTGGGG
num mismatch: 4
corrected:
TTTTGGGGCCCCGGGGATTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTTTGGGG
num mismatch: 1

n = 50, len(sequence) = 100

desired sequence:
TTTTGGGGCCCCGGGGTTTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTTTGGGG
actual sequence:
TTTTGGGACCCCGGGGTTTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTCTTATTTGGGGCCCC
GGGGTTTTCCCCAAAATTACGGAGTATTGGGG
num mismatch: 7
corrected:
TTTTGGGGCCCCGGGGTTTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTTTGGGG
num mismatch: 0

n = 100, len(sequence) = 100

desired sequence:
TTTTGGGGCCCCGGGGTTTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTTTGGGG
actual sequence:
TTATGGGGCCCCGGGGTTTTCCCCAAAATTTTGGGGCATTTGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTATGGGG
num mismatch: 5
corrected:
TTTTGGGGCCCCGGGGTTTTCCCCAAAATTTTGGGGTTTTGGGGCCCCGGGGTTTTTTTTGGGGCCCC
GGGGTTTTCCCCAAAATTTTGGGGTTTTGGGG
num mismatch: 0