

# Gotoh (Local) Unit Tests

Hint: Many test values are taken from project Algorithms  
for Bioinformatics of Alexander Mattheis or the lectures.

## Test 1

### Input

Sequence A: CG  
Sequence B: CCGA

Gap Opening: -3                       $g(k) = -3 - k \cdot 1$   
Enlargement: -1  
Match: 1  
Mismatch: -1

### Output

		C	C	G	A
		$-\infty$	$-\infty$	$-\infty$	$-\infty$
C	-	-4	-4	-4	-4
G	-	-3	-3	-4	-4

		C	C	G	A
	0	0	0	0	0
C	0	1	1	0	0
G	0	0	0	2	0

		C	C	G	A
		-	-	-	-
C	$-\infty$	-4	-3	-3	-4
G	$-\infty$	-4	-4	-4	-2

Seq1    CG  
         \*\*  
Seq2    CG

**Test 2-4:** Simulation of Smith-Waterman Tests by setting gap opening to 0.