

## Initialized Matrix with Identities

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	
Q	1				1			1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	
Q	1				1			1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	
Q	1				1		0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	
Q	1				1		0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	
Q	1				1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					
A				1				
Q	1				1			1
F		1						
A				1				
G						1	1	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G						1	1	0
Q	1	0	0	0	1	0	0	1



## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G						1	1	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G						1	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G						1	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G						2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G							2	2
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G					1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1				0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1



## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1			1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1			1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1		2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				1	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1					0
A				1				0
Q	1				1			1
F		1						0
A				3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			1	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	1				1			1
R			5	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Filling in Scoring Matrix

	Q	F	R	A	Q	G	G	Q
Q	6	5	4	3	3	2	1	1
R	4	4	5	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1



## Tracing A Path

	Q	F	R	A	Q	G	G	Q
Q	6	5	4	3	3	2	1	1
R	4	4	5	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Degenerate Alignment #1

	Q	F	R	A	Q	G	G	Q
Q	6	5	4	3	3	2	1	1
R	4	4	5	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

## Degenerate Alignment #2

	Q	F	R	A	Q	G	G	Q
Q	6	5	4	3	3	2	1	1
R	4	4	5	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1

### Degenerate Alignment #3

	Q	F	R	A	Q	G	G	Q
Q	6	5	4	3	3	2	1	1
R	4	4	5	3	2	2	1	0
A	4	3	3	4	2	2	1	0
Q	5	3	3	2	3	2	1	1
F	3	4	3	2	2	2	1	0
A	2	2	2	3	2	2	1	0
G	1	1	1	1	1	2	2	0
Q	1	0	0	0	1	0	0	1