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Genome 373

HW1

1. Write out all possible matches between AC and CG

|  |  |  |  |
| --- | --- | --- | --- |
| AC  CG | A C -  - C G | - A C  C G - | A - C  C G - |
|  | A C –  C – G | - A C  C - G | A – C  - C G |

1. Sequence Scoring-

C G G A A T C C G T – A

| | | | | | | | |

C G – A – T T C A G G A

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Match? | Y | N | N | Y | N | Y | N | N | N | N | N | Y |
| Score | 10 | 10 | -4 | 10 | -4 | 10 | 0 | 10 | 0 | -5 | -4 | 10 |

1. Consider two sequences- GATTA and CTTGA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | G | A | T | T | A |
|  | 0 |  |  |  |  |  |
| C |  |  |  |  |  |  |
| T |  |  |  |  |  |  |
| T |  |  |  |  |  |  |
| G |  |  |  |  |  |  |
| A |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

1. Paper Review
   1. The first example from the paper that required sequence alignment was the comparison to the mitochondrial genome. In the paper they claim that the genome has the strongest resemblance to the mitochondria genome and this could only be determined via sequence allgnment.

A second example from the paper



1. Programming Assignment
2. Feedback