aDynamic Programming Example

***Note: For all alignments, we will use a linear gap penalty of 4 points, a match score of +5 points, and a mismatch score of -1 point.***

Complete the dynamic programming matrix below to find the optimal alignment score and optimal alignment for THIS and HI.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | H | I |
|  | 0 | -4 | -8 |
| T | -4 | -1 | -5 |
| H | -8 |  |  |
| I | -12 |  |  |
| S | -16 |  |  |