Assignment 4

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# Part 1:

a)

|  |  |
| --- | --- |
| 0 |  |
| 1 | 4371 |
| 2 |  |
| 3 | 1323 | 6173 |
| 4 | 4344 |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 | 4199 | 9679 | | 1989 |

b)

|  |  |
| --- | --- |
| 0 | 9679 |
| 1 | 4371 |
| 2 | 1989 |
| 3 | 1323 |
| 4 | 6173 |
| 5 | 4344 |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 | 4199 |

c)

|  |  |
| --- | --- |
| 0 | 9679 |
| 1 | 4371 |
| 2 |  |
| 3 | 1323 |
| 4 | 6173 |
| 5 | 4344 |
| 6 |  |
| 7 |  |
| 8 | 1989 |
| 9 | 4199 |

d)

|  |  |
| --- | --- |
| 0 |  |
| 1 | 4371 |
| 2 |  |
| 3 | 1323 |
| 4 | 6173 |
| 5 | 9679 |
| 6 |  |
| 7 | 4344 |
| 8 |  |
| 9 | 4199 |

1989 does not fit on the table

# Part 2:

This apart of the assignment wanted me to multiply two polynomials together and out put a simplified resulting polynomial. I did this by making two vectors that would be the first two polynomials being multiplied together by pushing back two numbers that would represent the exponent and constant. These two vectors where called P1 and P2 and where added to a function called pollymaker and then this function used temp vectors to store values to foil values for the final vector, and then compare exponents to add values together for the final polynomial vector. I then printed out the final vector.

# Part 3:

This part of the assignment required me to build a spell checker that would check words from a text file that I created with against a dictionary of words made from the text file provided by the professor. It would do this by first turning the words from the provided text file into a created type dictionary which I labeled as d. After this I created a function that would turn the text file into a vector of vectors that would hold the line position of all the words in each line on the text file I created. I then scrolled through each word in each line and used a comparison function that would check all the hashes in the unordered\_map dictionary d, called search. This function would return a bool 1 or 0 depending on weather the word was in the dictionary or not. If it was not in the dictionary it would move into one of the functions that would try to either delete a letter from the word, add a letter to the word, or move all the letters around in the word and would then find all of the words in the dictionary that match this altered word and out put these words as alternative words for the misspelled words.

# Part 4:

# Input/Output Screen Shots:

## Part 2:

## Part 4: