(a) How many bytes in memory would be occupied by the following array of pointers to strings? How many bytes would be required to store the same strings, if they are stored in a two-dimensional character array?

```
char  *mess[ ] = {
                    "Hammer and tongs",
                    "Tooth and nail",
                    "Spit and polish",
                    "You and C"
                };
```

(b) Write a program that uses an array of pointers to strings str[ ] as given below. Receive a string str1 and check if str1 is embedded in any of the strings in str[ ].

```
char *str[ ] = {
                    "We will teach you how to...",
                    "Move a mountain",
                    "Level a building",
```

> "Erase the past",
> "Make a million",
> "...all through C!"
> };

(c) Write a program to sort a set of names stored in an array in alphabetical order.

(d) Write a program to reverse the strings stored in an array of pointers to strings:

(e) Write a program to delete all vowels from a sentence. Assume that the sentence is not more than 80 characters long.

(f) Write a program that will read a line and delete from it all occurrences of the word 'the'.

(g) Write a program that takes a set of names of individuals and abbreviates the first and middle name to their first letter.

(h) Write a program to count the number of occurrences of any two vowels in succession in a line of text. For example, in the following sentence:

"Please read this application and give me gratuity"

such occurrences are ea, ea, ui.

(i) Write a program that receives an integer (less than or equal to nine digits in length) and prints out the number in words. For example, if the number input is 12342, then the output should be Twelve Thousand Three Hundred Forty Two.