Problem 2. Complete the following questions based on the instructions given below.

a. Read through the code below and answer the questions below.

```
1  function pumpkins(file)
2  fh = fopen(file);
3  fw = fopen('new_file1.txt', 'w');
4  line = fgets(fh);
5  for x = 1:4
6      if ~isempty(strfind(line, 'halloween'))
7          fprintf(fw, line);
8      elseif ~isempty(strfind(line, 'pumpkin'))
9          fclose(fh);
10         fh = fopen(file);
11     end
12     line = fgets(fh);
13 end
14 fclose(fh);
15 fclose(fw);
16 end
```

song.txt :

```
this is halloween
this is halloween
everyone hail to the pumpkin song
in this town dont we love halloween
```

The following code is run in the command window.

```
>> pumpkins('song.txt')
```

i. What does 'new_file1.txt' look like? The choices are shown in the table. Do not worry about trailing newlines. (5 points)

◯ Choice A

◯ Choice B

◯ Choice C

Choice	Contents of 'new_file1.txt'
A	`this is halloween this is halloween`

B	`this is halloween`
	`this is halloween`
	`in this town dont we love halloween`

C	`this is halloween` `this is halloween` `this is halloween`

b. Fill in the blanks to complete the code below based on the surrounding code and comments above the blank. Do not worry about having extra lines at the bottom or top of the output file. (15 Points)

```
1  function scary(filename)
2  fh = fopen(filename);
3  newName = [filename(1:end-4) '_scary.txt '];
4  % open a new file for writing with newName as the name
5  fw = _____________________________________________________;
6  line = fgetl(fh);
7  % fill in the condition to loop through all lines in a file
8  while_____________________________________________________
9      [word, rest] = strtok(line);
10     % fill in the condition to get each word in a line
11     while_____________________________________________
12         if length(word) > 7
13             % print the word to the new file with a newline after
14             _____________________________________________;
15         end
16         % get the next word out of the line
17         [word, rest] = _____________________________________;
18     end
19     line = fgetl(fh);
20 end
21 fclose(fw);
22 fclose(fh);
23 end
```

SOLUTION for Problem 2. Complete the following questions based on the instructions given below.

a. Read through the code below and answer the questions below.

```
1  function pumpkins(file)
2  fh = fopen(file);
3  fw = fopen('new_file1.txt', 'w');
4  line = fgets(fh);
5  for x = 1:4
6      if ~isempty(strfind(line, 'halloween'))
7          fprintf(fw, line);
8      elseif ~isempty(strfind(line, 'pumpkin'))
9          fclose(fh);
10         fh = fopen(file);
11     end
12     line = fgets(fh);
13 end
14 fclose(fh);
15 fclose(fw);
16 end
```

song.txt :

```
this is halloween
this is halloween
everyone hail to the pumpkin song
in this town dont we love halloween
```

The following code is run in the command window.

```
>> pumpkins('song.txt')
```

i. What does 'new_file1.txt' look like? The choices are shown in the table. Do not worry about trailing newlines. (5 points)

◯ Choice A

◯ Choice B

◯ Choice C

Choice	Contents of 'new_file1.txt'
A	`this is halloween this is halloween`

B	`this is halloween`
	`this is halloween`
	`in this town dont we love halloween`

C	`this is halloween` `this is halloween` `this is halloween`

b. Fill in the blanks to complete the code below based on the surrounding code and comments above the blank. Do not worry about having extra lines at the bottom or top of the output file. (15 Points)

```
1  function scary(filename)
2  fh = fopen(filename);
3  newName = [filename(1:end-4) '_scary.txt '];
4  % open a new file for writing with newName as the name
5  fw = ___________fopen(newName, 'w')____________________;
6  line = fgetl(fh);
7  % fill in the condition to loop through all lines in a file
8  while_____________ischar(line)_____________________
9      [word, rest] = strtok(line);
10     % fill in the condition to get each word in a line
11     while_____________~isempty(word)_____________________
12         if length(word) > 7
13             % print the word to the new file with a newline after
14             _______fprintf(fw, '%s \n', word)___________;
15         end
16         % get the next word out of the line
17         [word, rest] = ________strtok(rest)_____________;
18     end
19     line = fgetl(fh);
20 end
21 fclose(fw);
22 fclose(fh);
23 end
```