You may not ask for any help on this exam. You can use your own code or any other public resources (Google, StackOverflow, etc.) You may not use code from your classmates.

50 pts possible out of 50

Setup:

Save your file as **exam.py.** The final line should print your unique name and your expected (not hoped for!) score.

Part A (25pts):

Find all of the hyperlinks on this page:

http://www-personal.umich.edu/~collemc/206Exam/examhtml.html (Links to an external site.)

1 (10pts) - Print a listing of all of the **unique** href values and a count of how many times they appear on the page.

2 (10pts)- Print the listing in order of appearance from least to most.

3 (2.5pts)- If a hyperlink reference is empty, store it as 'Empty'.

4 (2.5pts)- If a hyperlink reference is missing, store it as 'None'.

You will be graded on efficient use of Python.

Sample output (will be tested on different page source):

```
1 None

1 michigandaily.org

2 Empty

3 umich.edu

3 wikipedia.org

7 cnn.com
```

Part B (25pts):

1 (10pts)- Print all of the valid emails in the file mbox-short.txt.

2 (5pts) – Modify the program to print all of the valid emails in this file that use only letters, dots, or dashes (-) in the first part of the address (the part before '@').

3 (5pts) – Do not display duplicate email addresses.

4 (5pts)- Display only the first part of the email address (the part before @).

You will be graded on efficient use of Python. (continued on back)..

Partial sample output after step 2 (will be tested on different file contents):

```
wagnermr@iupui.edu

cwen@iupui.edu

postmaster@collab.sakaiproject.org

source@collab.sakaiproject.org

source@collab.sakaiproject.org

source@collab.sakaiproject.org

source@collab.sakaiproject.org

cwen@iupui.edu

source@collab.sakaiproject.org

cwen@iupui.edu

cwen@iupui.edu

wagnermr@iupui.edu
```