CSC120H Fall 2018 Worksheet: Files

1. We have a spreadsheet file that we've opened and assigned to `f`:

   ```
   f = open('budgie_budget.csv')
   ```

   Consider these code fragments:

   (a)
   ```
   for line in f:
       print(line)
   ```

   (b)
   ```
   line = f.readline()
   for line in f:
       print(line)
   ```

   (c)
   ```
   for line in f:
       print(line)
       f.readline()
   ```

   (d)
   ```
   print(f.readlines()[0])
   ```

   Fill in the blank next to each description below with the code fragment from above, (a), (b), (c) or (d), that it describes.

   (1) prints only the first line ______________

   (2) prints every line except the first ______________

   (3) prints all lines ______________

   (4) prints every second line ______________

2. Consider this code:

   ```
   budget_file = open('budgie_budget.txt', 'w')
   budget_file.write('Seed: $10/month')
   budget_file.write('Cage: $50')
   budget_file.close()
   ```

   What will the contents of budgie_budget.txt look like after this code is run?

   (a)
   ```
   'Seed: $10/month'
   'Cage: $50'
   ```

   (b)
   ```
   Seed: $10/month
   Cage: $50
   ```

   (c) `Seed: $10/month Cage: $50`

   (d) `Seed: $10/monthCage: $50`

   (e) `Cage: $50`

   (f) `'Seed: $10/month''Cage: $50'`

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```
from typing import TextIO
```

3. Many Unix-like systems (like OSX and the Teaching Labs) have a file of correctly spelled words. On a Mac, the path to the file is `/usr/share/dict/words`. On Teaching Labs, the path to the file is `/etc/dictionaries-common/words`. See below some of those words (the file contains both capitalized and lowercase words); complete the function on the right:

```
Zworykin   |  def is_correct(file: TextIO, word: str) -> bool:
Zyrtec     |      """Return True iff word is in file.
Zyrtec's   |
a          |      >>> dict_file = open('dictionary.txt')
aardvark   |      >>> is_correct(dict_file, 'Zyrtec')
aardvarks  |      True
abaci      |      >>> dict_file.close()
aback      |      >>> dict_file = open('dictionary.txt')
           |      >>> is_correct(dict_file, 'lolz')
           |      False
           |      >>> dict_file.close()
           |      """
```

4. Complete the following function:

```
def write_ascii_triangle(outfile: TextIO, block: str, sidelength: int) -> None:
    """Write an ascii isosceles right triangle using block that is sidelength
    characters wide and high to outfile. The right angle should be in the
    upper-left corner.

    Precondition: len(block) == 1

    For example, given block="@" and sidelength=4, the
    following should be written to the file:

    @@@@
    @@@
    @@
    @
    """
```