

1. Last class we created the following `int_input` function to validate that the user enters an integer.

```
"""
File: int_input.py
Author: Mark Fienup with help from Intro. class
Description: Implements a function int_input which validates an integer input.
"""
def int_input(prompt):
    while True:
        userInput = raw_input(prompt)
        if userInput.isdigit():
            return int(userInput)
        else:
            print "ERROR: You can only enter digits"
```

a) What's not quite correct about our functions definition of an integer?

b) What might be an better definition of an integer?

c) Let's write a better `int_input` definition using our improve definition of an integer.

2. Complete the following table about RAM (main memory) and harddisk (secondary storage).

	RAM (main memory)	Harddisk (secondary storage)
Usage - what is stored in it		

Size - how much storage is there on a typical desktop		
Speed - how fast is the information accessed		
Organization - how is information organized		

3. Below is a summary of the important text-file operations in Python.

File Operations in Python		
General syntax	Example	Description
open(filename) open(filename, mode)	<code>f = open('data.txt', 'w')</code>	Modes: 'r' read only; 'w' write only; 'a' append; 'r+' both reading and writing. Default mode is 'r'
f.close()	<code>f.close()</code>	Close the file to free up system resources.
f.read()	<code>all = f.read()</code>	Returns the whole file as a string.
f.read(size)	<code>chunk = f.read(100)</code>	Returns a string of at most 100 (size) bytes. If the file has been completely read, an empty string is returned.
f.readline()	<code>nextLine = f.readline()</code>	Returns the next line from the file. The newline ('n') character is left at the end of the string, unless it is the last line of a file which does not end in a newline character.
f.readlines()	<code>allLines = f.readlines()</code>	Returns a list containing all the lines of the file.
f.readlines(size)	<code>someLines = f.readlines(5000)</code>	Returns the next 5000 bytes of line. Only complete lines will be returned.
f.write(string)	<code>f.write('cats and dogs')</code>	Writes the string to the file.
loop over the file object	<code>for line in f: print line,</code>	Memory efficient, fast and simple code to loop over each line in the file.

Write a program to read a text file “myData.txt” and echo it to the screen.