

## ICA-6 Solutions

1.
  - a. The file does not exist  
The file is not in the proper format (it's a JPEG or some other format)
  - b. An empty file  
A file consisting of one line of input with one number
  - c. A file with more than one line, each having one or more numbers
2. Various inputs expose the bug, for example,
  - “stop” and “post” - works but only one character is checked
  - “hello” and “helps” – false pass
3. Various inputs expose the bugs, for example,
  - [] – causes an exception at the return statement
  - [-2, 4] – returns an incorrect answer
4.
  - (a)

```
from geolocation import *

def main():

    stash = GeoLocation(34.988889, -106.614444)
    abq = GeoLocation(34.989978, -106.614357)
    fbi = GeoLocation(35.131281, -106.61263)

    print("The stash is at ", str(stash))
    print("ABQ studio is at ", str(abq))
    print("FBI building is at ", str(fbi))
    print("Distance in miles between:")
    print("\t stash/studio is ", stash.distance_from(abq))
    print("\t stash/fbi is ", stash.distance_from(fbi))

main()
```

(b)

```
from geolocation import *

class PlaceInformation:

    def __init__(self, name, address, tag, latitude, longitude):
        self._name = name
        self._address = address
        self._tag = tag
        self._geolocation = GeoLocation(latitude, longitude)

    def get_name(self):
        return self._name

    def get_address(self):
        return self._address

    def get_tag(self):
        return self._tag

    def __str__(self):
        return "name: " + str(self._name) + ", address: " + str(self._address)

    def distance_from(self, other):
        g = self._geolocation
        return g.distance_from(other)
```