

1a) Which variable type would be most suitable to store each of the following values?

1. G - string
2. 2112- integer
3. Sarah - string
4. 3.21 - float
5. H2 string
6. -34.62 – float

1 b) What errors are present in the following code for welcoming a user to a program? Line numbers are included for easy reference

```
1 print>Welcome to my program") - SyntaxError: invalid syntax. Missing first "  
2  
3 print("Please enter your name: ")  
4 myName = int(input()) – should be str not int  
5  
6 print("Welcome, " myName) SyntaxError: invalid syntax missing comma  
8 print("I shall say hello to you 10 times: ")  
9  
10 for counter in range(0, 11) SyntaxError: expected: missing ":"  
11 print("Hello"
```

1 c) How many iterations do the following loops have?

for i in range(1, 9, 1): 8 iterations

```
print("Hello")
```

for i in range(0, 8, 2): 4 iterations

```
print("Hello")
```

1d) 13

1e)

i)false

ii)false

2.

```
import math
```

```
a = int(input("input square side lenght: "))
```

```
if a < 0:
```

```
    print("Please try again")
```

```
    a = int(input("input square side lenght: "))
```

```
elif a > 0:
```

```
    pass
```

```
h = int(input("input hight of the pyramid: "))
```

```
if h < 0:
```

```
    print("Please try again")
```

```
    a = int(input("input hight of the pyramid: "))
```

```
elif h > 0:
```

```
    pass
```

```
area = pow(a,2)
```

```
H = h / 3
```

```
v = area * H
```

```
V = round(v, 2)
```

```
print(V)
```

3.

```
a = []
```

```

for x in range(0,6):
    newAGE = int(input("Enter next age: "))
    if newAGE > 100:
        print("Out of range. Please try again!")
        newAGE = int(input("Enter next age: "))
    elif newAGE < 0:
        print("Out of range. Please try again!")
        newAGE = int(input("Enter next age: "))
    else:
        pass
    a.append(newAGE)

print("Here are the ages you entered: ")
print(", ".join("{:.2f}".format(item) for item in a))

```

```

def sum(l):
    total = 0
    for val in l:
        total = total + val
    return total

```

```

av = sum(a) / 6

```

```

AV = round(av, 2)

```

```

print("Avarage age: ", AV)

```

4.

```

import math

```

```
def entername(self):
    newadd = input("Enter name of the next delegate: ")

delegate = []
new = str()

for i in range(0,3):

    entername(new)
    delegate.append(new)

print(delegate)

def sum(l):
    total = 0
    for val in l:
        total = total + val
    return total

cost = 65

totalbill = sum(cost)

print("The delegates who attended today were: ", delegate , "Total due is: £", totalbill )
```