Survey #2

Name: _____

Consider the follow code segment:

```
a = int(input())
b = int(input())

if (a < b):
  for i in range(a,b):
    print(i)
elif (b < a):
  for i in range(b,a):
    print(i * -1)
else:
  print(0)
```

1: What is the minimum number of test cases that are required in order to achieve statement level test coverage?

2: Define a set of test cases that will provide statement level test coverage. Clearly indicate what value is entered for a and what value is entered for b for each test case.

3: Which of the following statements is most correct?
   A. A for loop is an example of a post-tested loop
   B. A for loop always counts from one value to another, increasing by one each time
   C. Two loops are said to be nested when one loop executes completely before the second loop executes for the first time
   D. Every while loop can be rewritten as a for loop
   E. None of the above answers are correct

Answer: _____

4: What output will result when the following Python statement is executed?

```
print("3" + 5)
```

   A. 8
   B. 8.0
   C. 35
   D. 35.0
   E. None of the above answers are correct

Answer: _____

Consider the following code segment:

```
a = int(input("Enter a: "))
b = int(input("Enter b: "))
total = 0

while (a <= b):
  a = a + 1
  print("A")
  if a % 4 == 0:
    b = b + 1
    print("B")
  total = total + a

print(total)
```

5: If the user enters 1 for a and 1 for b, then the output will be: _____

6: If the user enters 2 for a and 4 for b, then the output will be: _____

7: If the user enters 3 for a and 5 for b, then the output will be: _____

8: If the user enters 5 for a and 3 for b, then the output will be: _____

9: Rewrite the program shown below so that it uses a while instead of using a for loop.

```
a = int(input("Enter a: "))
b = int(input("Enter b: "))
total = 0

for i in range(a,b,3):
  if (i % 2) == 0:
    total = total + i
  else:
    total = total - i

print(total)
```

10: What output is generated by the following program?

```
for i in range(0,2):
  for j in range(0,2):
    for k in range(0,2):
      print(i,j,k)
```