# CS0015 INTRODUCTION TO COMPUTER PROGRAMMING

For Loops

1. Complete a trace table and give the output from the following loops:

```
     sum = 0
     for i in range(1, 6):
          sum = sum + i ** 2
     print(sum)
Output
55
```

```
     sum = 0
     for i in range(2, 12, 2):
          sum = 0
          sum += i

     print(sum)
Output
10
```

```
     s = 0
     c = 0
     for i in range(1, 7):
          s += i
          if i > 2:
               c = c + 1

     print(s/c)
Output
5.25
```

```
x = 30
for i in range(1, 6):
     print(x)
     if x % 4 == 0:
          print('is evenly divisible by 4')
     x -= 2
```

Rewrite the above code **without using i** and using x in the **for** statement

```
for x in range(1, 6):
   x = (-2 * (x - 1))
   x += 30
   print(x)
   if x % 4 == 0:
      print('is evenly divisible by 4')
   x = (2 * (x - 1))
   x -=30
```

2. Write a Python program using a **for** loop that will produce the following table

| Yards | Feet | Inches |
|---|---|---|
| 1 | 3 | 36 |
| 2 | 6 | 72 |
| 3 | 9 | 108 |
| . | . | . |
| . | . | . |
| . | . | . |
| 10 | 30 | 360 |

```
print('Yards \t Feet \t Inches')
for yards in range(1, 11):
     feet = yards * 3
     inches = yards * 36
     print(yards, '\t', feet, '\t', inches)
```