Course: Computing for Engineers – ENGG 233

Lab #: Lab 1

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Lab Section: L01

Lab Group: Orange

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In-Lab Exercise 2: Operator Precedence – Manual Solutions

a) z = x + n * y – (x + n) * y
z = 2.5 + 4 * (-1.5) – (2.5 + 4) * (-1.5)
z = 2.5 + 4 * (-1.5) – 6.5 * (-1.5)
z = 2.5 + (-6) + 9.75
z = 6.25

b) z = m / n + m % n
z = 18 / 4 + 18 % 4
z = 4.5 + 2
z = 6.5

c) z = n / m + n % m
z = 4 / 18 + 4 % 18
z = 0.222… + 4
z = 4.222…

d) z = 5 * x – n / 5
z = 5 * 2.5 – 4 / 5
z = 12.5 – 0.8
z = 11.7

e) z = 1 – (1 – (1 – (1 – (1- n))))
z = 1 – (1 – (1 – (1 – (1- 4))))
z = 1 – (1 – (1 – (1 – (-3))))
z = 1 – (1 – (1 – 4))
z = 1 - (1 – (-3))
z = 1 – 4
z = -3

Screenshots of Source Code and Output

```
1   message = "Hello! Welcome to ENGG 233"
2   print(message)
3
4   x = 2.5
5   y = -1.5
6   m = 18
7   n = 4
8
9   z = x + n * y - (x + n) * y
10  print(z)
11
12  z = m / n + m % n
13  print(z)
14
15  z = n / m + n % m
16  print(z)
17
18  z = 5 * x - n / 5
19  print(z)
20
21  z = 1-(1-(1-(1-(1-n))))
22  print(z)
```

```
Hello! Welcome to ENGG 233
6.25
6.5
4.222222222222222
11.7
-3
```