Solution to exercise part 2

1.

**Solution**:

1. [2 marks] The result is 1 + (2 × 3) = 7.
2. [3 marks] The result is (1 + 2) × 3 + 4 = 13.
3. [5 marks] The result is 6 / 3 × (2 + 4) / 5 = 2.4.

3.

**Solution**:

a. [5 marks] 1 addition is needed for *n* = 1, 2 additions for *n* = 2, …. Therefore, this function requires a total of 1 + 2 + … + *n* = *n*(*n*+1)/2 additions.

b. [5 marks] Since sum(*n*+1) = sum(*n*) + (*n*+1), we use a variable to remember the last sum. The revised code is below. The total number of additions is *n*.

*def sum(n):*

*result = 0*

*for i in range(1,n+1):*

*result = result + i*