

MA205 - Integral Calculus
Lesson 1: Introduction to MA205
Class Problems

1. What does $\sum_{i=1}^4 i$ mean? Evaluate it.

2. Suppose we want to add up the squares of the numbers 1, 2, 3, 4. How can we write this in summation notation?

3. Instead of squares, suppose we wanted to add up function values of $f(x)$ at $x = 1, 2, 3, 4$. How can we write this in summation notation?

4. Let's make things a little more difficult now: Suppose we want to evaluate $f(x)$ at the point in between 0 and 1, then at the point in between 1 and 2, and so on up to the point in between 5 and 6. Then, suppose we want to add these values together. How can we write this in summation notation?

5. Is this notation really necessary?? To decide for yourself, write down the sum of all numbers 1, 2, ..., 1000000 using summation notation. Would you want to write down the same sum *without* summation notation? I would go crazy if I had to do it!