

We know from the text that polynomials (i.e. a sum of terms where n is raised to fixed powers, even if they are not integers) grow slower than exponentials. Thus, we will consider f_1, f_2, f_3, f_6 as a group, and then put f_4 and f_5 after them.

For polynomials f_i and f_j , we know that f_i and f_j can be ordered by comparing the highest exponent on any term in f_i to the highest exponent on any term in f_j . Thus, we can put f_2 before f_3 before f_1 . Now, where to insert f_6 ? It grows faster than n^2 , and from the text we know that logarithms grow slower than polynomials, so f_6 grows slower than n^c for any $c > 2$. Thus we can insert f_6 in this order between f_3 and f_1 .

Finally come f_4 and f_5 . We know that exponentials can be ordered by their bases, so we put f_4 before f_5 .

¹ex831.202.488