

Review Suggestions for Assessment 9 for Year 2 SL Math

We have reviewed and introduced a number of KEY calculus concepts in our first weeks of Math SL. These are: (1) chain rule, (2) product rule, (3) analyzing a function using calculus and using either the first or second derivative to verify types of extrema/IP, (4) optimization, (5) antiderivatives and (6) finding area under the curve, both with and without the calculator. Of course, in order to effectively apply "the calculus", you need to know your functions \Rightarrow so I would recommend knowing the exponential function, the natural log function and of course the sinusoidal functions (as well as their transformations).

So to help you review & practice on your own with some "new to you" problems, please visit the following review sections in your OXFORD textbook and practice your skills. NOTICE: there are CA questions as well as CI questions in the Review Questions section. SECOND NOTE: Do NOT do any Qs involving the Quotient Rule ...

PART 1 - Differential Calculus

Oxford 7.3, p212 - 215 (Exercise 7I & 7J) present examples of Product Rule (so try the Qs in Example 10 & 11 without looking at their solutions)

Oxford 7.4, p215 - 221 (Exercises 7K, 7L, 7M) present examples of Chain Rule as well as Product Rule (so try the Qs in Example 12, 14 & 15 without looking at their solutions)

Oxford 7.6, p230 - 240 (Exercises 7Q, 7R, 7S, 7T, 7V and 7W) present examples of "curve analysis" (so try the Qs in Example 21 - 25 without looking at their solutions)

Oxford 7.7, p244 - 240 (Exercises 7X and 7Y) present examples of optimization problems (so try the Qs in Example 29 - 32 without looking at their solutions)

So Oxford, Chap 7 Review would be an EXCELLENT idea to work through on p248-250

PART 2 - Integral Calculus

Oxford 9.1, p291 - 296 (Exercise 9A, 9B, 9C) present examples of antiderivatives and indefinite integrals (so try the Qs in Example 1,2,3 without looking at their solutions)

Oxford 9.2, p297 - 300 (Exercises 9D, 9E) present more examples of indefinite integrals (so try the Qs in Example 4,5,6,7 without looking at their solutions)

Oxford 9.3, p302 - 308 (Exercises 9G, 9H) present examples of definite integrals (so try the Qs in Example 8,9,10 without looking at their solutions)

Oxford 9.4, p309 - 313 (Exercises 9I, 9J) present examples of evaluating definite integrals (so try the Qs in Example 11,12 without looking at their solutions)

So Oxford, Chapter 9 Review would be an EXCELLENT idea to work through on p327-8 (CI, Q1,2,3 (not 3d yet),4,5,7 and then CA, Q3)