AP Calc BC First Semester topic overview

Here are the BC topics that we covered first semester

Logistic Models, Euler's Method, Integration by Parts, Integration by Partial Fractions, Integrals at infinity or at points of discontinuity, Arc length, and advanced limit techniques.

An FRQ with these topics will generally include some related AB topics.

Classwork #1

This is one of the few Logistic Model FRQ's that exist. Review how to get the equation in the correct form to find M = the carrying capacity. Note that parts c and d are just a separable differential equation from AB (a little tricky one but not new topics)

Classwork #2

Parts a, b, and c are old-fashioned function analysis with and easy tangent line and setting a derivative = 0 and solving. Part d requires that you integrate and the problem tells you the method to use. Go back and study how to use partial fractions

Classwork #3

This problem includes a more advanced limit followed by Euler's method. It ends with a basic separable differential equation again from AB.

Classwork #4

Like problem #2, this problem starts with a tangent line and function analysis, but part c requires integration with no hints this time. Any guess as to the method?

Two of the homework problems include arc length and an integral at infinity so you will be exposed to each topic. Please invest time in reviewing these topics before just jumping to the posted answers.

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