Math Analysis / IB Math Standard

Review Sheet for Unit 1: Functions and Equations

You should be able to do the following things on the test:

Without a calculator

Write any answer in scientific notation *First Day*

Find the midpoint and distance between any two points *Section 2.2*

Find the slope of any line, or between any two points *Section 2.3*

Find equations of lines in y = mx + b or Ax + By + C = 0 form *Section 2.3*

Find equations of parallel and perpendicular lines *Section 2.3*

Identify the domain of any function *Section 3.1*

Identify asymptotes of any function *Section 3.1*

Identify the 12 basic functions *Section 3.2*

Find compositions of functions *Section 3.5*

Decompose compositions of functions *Section 3.5*

Find inverses of functions *Section 3.6*

Sketch inverses of functions *Section 3.6*

Identify and apply transformations any function: translations, reflections, and dilations *Section 3.3*

Solve a system of two equations in two variables by                                       *Section 10.1*

* substitution
* elimination

Solve word problems related to systems of equations                                         *Section 10.1*

With a calculator

All of the above, plus…

Write answers to a given number of significant figures or decimal places *First Day*

Identify functions and non-functions *Section 3.1*

Identify the domain and range of any function *Section 3.1*

Identify extrema, symmetry and asymptotes of any function *Section 3.2*

Identify x-intervals on which a function is increasing or decreasing *Section 3.2*

Accurately sketch functions showing all important characteristics *Section 3.3*

Identify and apply transformations of the 12 basic functions *Section 3.3*

Solve any system of equations by graphing *Section10.1*

Solve real-life problems *All Sections*

These problems would be good to review before the test:

Read 157-158

Do 158-160: 5, 8, 9, 12-14, 21, 30

Read 250-252

Do 252-257: 1, 4, 6-21, 37, 38, 43-47, 52-57, 63, 65, 70, 74, 76, 77, 81, 85, 87

Read 698

Do 700-703: 1-6, 28, 55