ALGEBRA 2 B – SEMESTER EXAM STUDY LIST

UNIT 2 – Radical Functions and Rational Exponents

Simplify a radical expression

Rationalize a radical denominator

Identify the graph of a radical function

Simplify an exponential expression

Solve an exponential equation

Evaluate a composite function

UNIT 3 – Rational Functions

Evaluate direct variation or indirect variation

Write an equation for the translation of a reciprocal function

Identify the graph of a rational function

Find the points of discontinuity of a rational function

Simplify a division of rational expressions & state any restrictions on the variable

Simplify a complex fraction

UNIT 4

Determine a specified term in an arithmetic sequence

Determine a specified term in a geometric sequence

Determine the term between two other terms in a sequence

Find the sum of a series given the sigma notation or the sequence

Determine if an infinite series converges or diverges. If it converges, determine the sum.

UNIT 5

We did not do these lessons using the equations for parabolas, circles, ellipses, and hyperbolas.

*** You should skip these 8 problems on the exam, and I will adjust your exam score. ***

UNIT 6

Calculate permutations and combinations

Calculate the probability of a single event, of a compound event, of a conditional event

Calculate the mean, median, mode, and range of a data set

Calculate the standard deviation of a data set

Given the mean and standard deviation for a normal distribution situation, calculate a requested section

UNIT 7

Find the period, amplitude, maximum, and minimum of a periodic function

Identify a periodic function equation given the maximum, minimum, and period

Identify the graph of a given sine or cosine function

Find the exact value of a given trigonometric function using the unit circle

Find the exact value of a given trigonometric function using the graph of the function

Calculate an arc length

Evaluate inverse trig functions

Simplify a trigonometric expression

** See the text book Chapter Reviews and the video tutorial links on our class website. **

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