Instructions: There are 40 multiple choice questions for this final, with 8 questions for each unit that we have covered in the 2nd semester. Below are the list of topics that are covered for the final, and the underlined topic for each unit means that topic consists more questions than the other topics. Please study accordingly!

Unit 6: Exponential and Logarithmic Functions
- Evaluating logarithmic expressions (pg. 311 example 3)
- Finding the inverse of exponential and logarithmic functions (pg. 312 example 4)
- Transformations of exponential and logarithmic functions (pg. 321 examples 5, 6)
- Using the properties of logarithms to evaluate (pg. 328 example 1)
- Condensing and expanding logarithms (pg. 329 examples 2, 3)
- Solving logarithmic and exponential equations (pg. 334 examples 1, 3, 4)

Unit 7: Rational Functions
- Simplifying rational expressions (pg. 376 example 1)
- Multiplying and dividing rational expressions (pg. 377 examples 2, 3, 4, 5, 6)
- Adding and subtracting rational expressions (pg. 385 example 3, 4)
- Solving rational equations (pg. 392 examples 1, 3, 4)
- Graphing rational functions (with domain and range) (pg. 367 examples 2, 3)

Unit 8: Sequences and Series
- Writing a series in summation notation (pg. 412 example 4)
- Finding the sum of arithmetic and geometric series (pg. 421 example 5, pg. 429 example 5)
- Finding the sum of an infinite geometric series (pg. 437 example 2)
- Creating rules for sequences given specific terms (pg. 420 example 4, pg. 428 example 4)
- Writing rules for arithmetic and geometric sequences (pg. 419 example 2, pg. 427 example 2)
- Writing recursive rules for arithmetic and geometric sequences (pg. 443 example 2)
- Word Problems (pg. 412 example 6)

Unit 9: Trigonometry
- Finding exact values of trigonometric expressions (pg. 479 example 2, pg. 481 example 4)
- Solving trigonometric equations (pg. 522 example 4)
- Finding trigonometric values given other trigonometric values (pg. 463 example 2)
- Graphing trigonometric functions (pg. 489 examples 3, 4; pg. 499 examples 1, 2, 3, 4)
- Understanding negative and coterminal angles (pg. 471 example 2)
- Understanding degrees and radians (pg. 472 example 3)
- Using the sum and difference formulas (pg. 521 example 3)

Unit 10: Data Analysis and Probability
- Geometric/Area probability (pg. 540 example 4)
- Combinations (pg. 573 example 5)
- Permutations (pg. 571 example 3)
- Probability of overlapping or disjoint events (pg. 564 examples 1, 2, 3)
- Probability of independent or dependent events (pg. 547 examples 3, 4)
- Normal Distribution to find probability (pg. 597 example 2)
- Finding the z-score and using a Standard Normal Table (pg. 598 example 3)