Exam 2 is on Wednesday October 22. The material covered is from September 2 to the end of class on Thursday, October 16 (if we are on schedule, then this is through Section 11.3) with emphasis on material after September 23. At least one question on the exam will come from List A and at least one question will come from the list below.

**List B for Exam 2**

1. Derive the formula for the Trapezoid Rule.
2. If $f'$ is continuous on $[a, b]$, what is the formula for the length of the curve $y = f(x)$, $a \leq x \leq b$?
3. If $f'$ is continuous on $[a, b]$, what is the formula for the surface area of the curve $y = f(x)$, $a \leq x \leq b$ rotated about the $x$-axis?
4. Give an example of a sequence. Give an example of a series. Carefully label which is which.
5. What is the definition of a geometric series?
6. State the ‘Test for Divergence’.
7. State the $p$-series test.

You will be given the error bound formula for the Trapezoid Rule as a reference.

**Skipped Content**

The following list of material will not be on this or any other exam for this class:

- Error bound formulas for midpoint rule.
- Formula and error bound formula for Simpson’s Rule