

## Prime Distribution

The goal of the presentation is to describe some properties of the distribution of prime numbers and the prime number theorem. Your presentation should include a discussion of

- The Prime Number Theorem
- Bounds on the prime counting function.
- A (brief) definition of the natural logarithm (This is necessary for the statement of the Prime Number Theorem to make sense)

In addition your presentation should include at least one thing not on the above list.

At the end of your presentation the class will be asked one of the following questions.

- What is the Prime Number Theorem?
- List the following from smallest to largest:

$$e, \quad \lim_{n \rightarrow \infty} \frac{\pi(n)}{\frac{n}{\ln(n)}}, \quad 5$$

- What is Bernards Postulate?

A good starting point for your research is

[http://http://en.wikipedia.org/wiki/Prime\\_number\\_theorem](http://http://en.wikipedia.org/wiki/Prime_number_theorem)

If you have any questions regarding the presentation feel free to e-mail your TA or Dr. Ackerman