实验 2 要求

~~1. 邮件标题：学号+姓名+实验2~~

~~2. 文件名：学号+姓名+实验2~~

~~3. 截止时间：2022年10月23号（23:59 pm）之前~~

恰当组织文档的**章节结构**，注意排版。

Objective：

To find out the bandwidth of your Internet service; understand how a speed test work.

Instruction and tasks

Part I

Use a browser (Chrome or Firefox) to visit www.speedtest.net. In the map that you see on the website, find the nearest server from your computer, and name it server A. Also, pick a distant server (at least 1000 miles away), and name it server B. Then, answer the following questions.

(1) Run a speed test with server A, and record the download bandwidth. How much is the difference between the measured bandwidth and the bandwidth as advertised by your service provider?

(2) Compute the propagation delays from server A and B to your computer.

(3) Use the measured bandwidth from question 1 to compute the bandwidth-delay product from server A to your computer and the bandwidth-delay product from server B to your computer.

Part II

Read how the speed test work by visiting this website:

https://support.speedtest.net/entries/20862782-How-does-the-test-itself-work-How-is-the- result-calculated- and then answer the following questions. https://help.speedtest.net/hc/en-us

- What do you think are the protocols used by the speed test?
- Explain why the bandwidth measurement is more likely to be accurate if you use a nearby server and download small files from it as opposed to using a distant one and downloading large files from it.
- The speed test calculates the result by averaging the speeds of many downloads. Discuss why the download test files can't be the same.