**Iyesha Thornton**

**ITP 325 - Homework 03a**

**Deadline:**

1 minute before the next class.

**Submission:**

1. Answer the questions at the end of this file, and name the document hw03a.docx and hw03a.py
2. Download the instructor’s GPG key from the following location:

<https://sites.google.com/a/usc.edu/chiso/files>

GPG encrypt both files with the instructor’s **and** your own GPG key.

1. Place the encrypted document into the repo and push to changes GitHub

**Procedure:**

Write a program to solve the following problem:

*By listing the first six prime numbers: 2, 3, 5, 7, 11, and 13, we can see that the 6th prime is 13.*

*What is the 10,001st prime number?*

* You may use any programing language that you like.
* You can use any resources at your disposal.
* If you are not good at coding and have a good reason, you may ask for an extension. You can extend this homework till the day of the midterm @ 11:59PM. **You must ask the professor first before you can get an extension.**

**Save the code for this script/program as hw03a.py**

**Question:**

1. What is the last valid host on the subnetwork 172.17.24.0 255.255.248.0?

172.17.24.1

1. Which subnet does host 172.29.15.94/23 belong to?
   1. B
2. How many subnets and hosts per subnet can you get from the network 172.16.0.0/27?
   1. 27
3. What valid host range is the IP address 172.22.149.205/26 a part of?
   1. A
4. What is the broadcast address of the network 10.166.240.0 255.255.240.0?
   1. 10.166.240.7
5. What is the last valid host on the subnetwork 192.168.68.208/28?
   1. 192.168.68.207
6. How many subnets and hosts per subnet can you get from the network 192.168.0.0/25?
   1. 0
7. How many subnets and hosts per subnet can you get from the network 192.168.252.0/25?
   1. 252
8. Which subnet does host 172.27.166.75 255.255.254.0 belong to?
   1. A
9. What is the last valid host on the subnetwork 172.22.16.0 255.255.240.0?
   1. 172.22.16.1

**Reference:**

* <http://www.codecademy.com/tracks/python>
* <https://projecteuler.net/problem=7>