

Warren Hills Regional HS

AP Computer Science

Summer Assignment

My objective for this summer assignment is not to overwhelm you with work, but to make sure we start the year ready to move forward from where we left off in the Intro to Computer Programming class. This assignment is especially important for students that haven't taken the Intro class. Additionally, there is an Intro review sheet on my website that links to videos that you might find helpful. However, don't worry if you don't understand all the material. We will do a quick review of the material covered in the Intro class. I will spend the necessary time helping you catch up as long as you are willing to put forth the effort.

This assignment will be collected within the first week of school, but extra time can be given for those who are struggling with the material. It is more important to me that the work is your own rather than the assignment being finished on time. (The Honor System) Collaboration is encouraged but copying is cheating. You should not be looking at other student's code unless you are done and acting as the tutor. You should also not be doing the programs together line by line. You can talk out concepts together (This is encouraged)

Read/ Skim

In Intro to CS we covered most of the topics in Chapters 1,2,3 and 5 of the Java Software Solutions book. I recommend referring to these chapters when doing the summer assignment.

Videos

If you need some review videos, go to the Java (Beginning and Intermediate) at <https://thenewboston.com/videos.php>

Remind text messages:

I created a Remind to let you know when I will be available during the summer. I will have one or two review sessions in August for anyone who is struggling. Text APCS1617 to 81010 to sign up.

Programming assignment:

On back

Programs: (Graded for all students – 10 points each)

The following programs can be done on paper or on the computer (preferred). The link for downloading eclipse and the keyboard class can be found on my website. Please comment and have user friendly output.

1. Write a program that will allow the user to enter two points and will output the distance between the two points using the distance formula.
2. Write a program that will print a random phone number of the form XXX-XXX-XXXX. The first three digits can't have an 8 or 9. In addition the first number can't be a zero. The second set of numbers can't be higher than 742.
3. Write a program that asks the user to enter a sentence. Count how many lower case vowels appear in the sentence.
4. Write a program that will have the user input a height and output the following shape using nested for loops.

```
  *
 * *
* * *
* * * *
* * * * *
* * * * * *
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If you have any questions, please feel free to email me at detrickd@warrenhills.org. **Please send me an email before school is out so I have your email address.** I plan to have a review session in August for anyone who wants to attend.

Good luck and have a great summer. -- Mr. D

My website is www.warrenhills.org/detrickd