**Homework 1**

**Video Homework**

~5 min video tutorial: https://www.youtube.com/watch?v=Y4xFGCyt1ww

**Questions**

1. We have seen that we cannot compare floating point numbers using == operators. Come up with a way to compare two numbers equality.
2. We have seen that casting floats to integers simply truncates the decimal part and does not round the number. Come up with a way to round floating point numbers mathematically correct way. We have not learned methods(functions) yet, so do not use them. (Hint: There is an easy way to do it with operators)
3. We learned how to cast different number types to each other (Eq: int to double, double to int). What about characters? Since all information are stored as 1 and 0s in the computer memory, there should be a way to represent characters as a number. What is it called, and how can we cast char type to int type? (Hint: Google this term: ASCII )
4. How can we detect integer overflows?

**Programming**

1. We assigned initial values to variables in the class. However, we have not seen how can we read an input from user. Use your research skills (aka Google) to find out how we can ask user for an input. Write a program that creates an int variable, and assigns user input to that variable. It should take just two lines of code, and do not worry if you do not understand how it works as we have not learned methods yet.