

CSC1300: LAB 10 – Vectors

Concepts

* Vectors
* Functions

# DESCRIPTION

**Moon Pies**



Jane steals moon pies from her brother on a regular basis. Write a program that will keep statistics on her moon pie stealing habit.

# Specifications

Write a program named **moonpie.cpp**. All your code will be in this one file.

* Create a vector named moonPieVector.
* Ask how many days Jane stole moon pies.
* Create a function called **enterStolenMoonPies** and call this function from your main function. You will send the vector & number of days to this function. You will populate the vector by asking the user how many moon pies Jane stole on each day. **NOTE: Are Vector ADTs passed by VALUE or REFERENCE?**
* Then, create a function called **totalMoonPies** and call this function from your main function. You will send the vector & number of days to this function. In this function, you will figure out how many moon pies in total has been stolen by Jane – then return this value back to main.
* Then, create a function called **averageMoonPies** and call this function rom your main function. You will send the number of days, and the total # moon pies stolen to this function. In this function, you will figure out the average number of moon pies that were stolen per day – then return this value back to main.
* Then, create a function called **highestMoonPies** and call this function from your main function. You will send the vector & number of days to this function. In this function, you will figure out the most moon pies Jane stole in a single day and then return this value back to main.
* Then, create a function called **lowestMoonPies** and call this function from your main function. You will send the vector & number of days to this function. In the function, you will figure out the least number of moon pies Jane stole in a single day and then return this value back to main.
* Last, print out the total, average, highest & lowest in an easy-to-read way in the main function. Refer to sample output for formatting.

Sample Output

How many days did Jane steal moon pies?

4

Enter the number of moon pies stolen each day.

DAY 1: 3

DAY 2: 6

DAY 3: 1

DAY 4: 7

DAY 5: 2

-----------------RESULTS-----------------

TOTAL # MOON PIES STOLEN: 19

AVERAGE # MOON PIES STOLEN PER DAY: 3.8

MOST # MOON PIES STOLEN IN ONE DAY: 7

LEAST # MOON PIES STOLEN IN ONE DAY: 1