

Built-in Types, Command Line Arguments

**The code for the problems is attached separately.*

A. ChocolateBars

- Test Case 1:

```
PS C:\Users\jnaat\IdeaProjects\HW3\out\production\HW3> java ChocolateBars
Enter the weight in pounds: 115
Enter the height in inches: 59
Enter the age in years: 50
Enter M for Man, W for Woman: W
Enter S for Sedentary, O for Occasionally, A for Active, H for Highly Active: A
BMR adjusted for gender and lifestyle is: 1668.52
○ Number of chocolate bars for woman is: 7
```

- Test Case 2:

```
PS C:\Users\jnaat\IdeaProjects\HW3\out\production\HW3> java ChocolateBars
Enter the weight in pounds: 100
Enter the height in inches: 55
Enter the age in years: 15
Enter M for Man, W for Woman: y
Error! Please enter M for Man or W for Woman: W
Enter S for Sedentary, O for Occasionally, A for Active, H for Highly Active: m
Error! Please enter S for Sedentary, O for Occasionally, A for Active, H for Highly Active: O
BMR adjusted for gender and lifestyle is: 1654.90
○ Number of chocolate bars for woman is: 7
```

- Test Case 3:

```
PS C:\Users\jnaat\IdeaProjects\HW3\out\production\HW3> java ChocolateBars
Enter the weight in pounds: 200
Enter the height in inches: 60
Enter the age in years: 20
Enter M for Man, W for Woman: W
Enter S for Sedentary, O for Occasionally, A for Active, H for Highly Active: H
BMR adjusted for gender and lifestyle is: 2554.50
○ Number of chocolate bars for woman is: 11
```

B. ExamAverager

- Test Case 1:

```

PS C:\Users\jnaat\IdeaProjects\HW3\out\production\HW3> java ExamAverager
This program computes the average of a list of (nonnegative) exam scores.
Enter all the scores to be averaged.
Enter a negative number after you have entered all the scores.
15
20
15
-1
The average is: 16.666666666666668
Score #1: 15.000000 -- Below average
Score #2: 20.000000 -- Above average
Score #3: 15.000000 -- Below average
Want to average another exam?
Enter yes or no: n

```

- Test Case 2:

```

Enter a negative number after you have entered all the scores.
20
17
1
90
-5
The average is: 32.0
Score #1: 20.000000 -- Below average
Score #2: 17.000000 -- Below average
Score #3: 1.000000 -- Below average
Score #4: 90.000000 -- Above average
Want to average another exam?
Enter yes or no: h
Error! Please enter y for yes or n for no: y
Enter all the scores to be averaged.
Enter a negative number after you have entered all the scores.
5
85
77
25
35
68
-1
The average is: 49.166666666666664
Score #1: 5.000000 -- Below average
Score #2: 85.000000 -- Above average
Score #3: 77.000000 -- Above average
Score #4: 25.000000 -- Below average
Score #5: 35.000000 -- Below average
Score #6: 68.000000 -- Above average
Want to average another exam?
Enter yes or no: n
PS C:\Users\jnaat\IdeaProjects\HW3\out\production\HW3>

```

C. ManipulateDNA

- Test Case 1:

1	AGCT
2	TACGTCGA

```
connormarry@Connors-MacBook-Pro CSE2102 % java ManipulateDNA
Please enter the filename: inDNA.txt

Sequence Number: 1
Input Sequence: AGCT
Reverse Sequence: TCGA
Complement: TCGA
Reverse Complement: AGCT

Sequence Number: 2
Input Sequence: TACGTCGA
Reverse Sequence: AGCTGCAT
Complement: ATGCAGCT
Reverse Complement: TCGACGTA
```

- Test Case 2:

1	AGCTTACGTCGA
2	TACGTCGATTACGTCG

```
Please enter the filename: inDNA.txt
```

```
Sequence Number: 1
```

```
Input Sequence: AGCTTACGTCGA
```

```
Reverse Sequence: AGCTGCATTCTGA
```

```
Complement: TCGAATGCAGCT
```

```
Reverse Complement: TCGACGTAAGCT
```

```
Sequence Number: 2
```

```
Input Sequence: TACGTCGATTACGTCG
```

```
Reverse Sequence: GCTGCATTAGCTGCAT
```

```
Complement: ATGCAGCTAATGCAGC
```

```
Reverse Complement: CGACGTAATCGACGTA
```

D. TriangleTester

- Test Case 1:

```
connormarry@Connors-MacBook-Pro CSE2102 % java TriangleTester
Enter the first length: 3
Enter the second length: 4
Enter the third length: 5
These lengths can form a triangle
It is a right triangle
```

- Test Case 2:

```
connormarry@Connors-MacBook-Pro CSE2102 % java TriangleTester
Enter the first length: 3
Enter the second length: 4
Enter the third length: 6
These lengths can form a triangle
It is an obtuse triangle
```

- Test Case 3:

```
connormarry@Connors-MacBook-Pro CSE2102 % java TriangleTester
Enter the first length: 3
Enter the second length: 4
Enter the third length: 4
These lengths can form a triangle
It is an acute triangle
```

- Test Case 4:

```
connormarry@Connors-MacBook-Pro CSE2102 % java TriangleTester
Enter the first length: 3
Enter the second length: 4
Enter the third length: 8
These lengths cannot form a triangle
```