**Exercise 1 - Dawson**

public class Inequality

{

public static void main(String[] args)

{

// list of incomes in thousands

int[] income = {2,10, 532, 4, 53, 28, 291, 38, 6, 17, 73, 21};

int sum = 0;

int average;

for (int i = 0;i< income.length;i++)

{

sum = sum + income[i];

}

average = sum/income.length;

System.out.println(" Average of income array : " + average);

for (int i = 0; i < income.length; i++) {

if (income[i] > average) {

System.out.println(income[i] + " ");

}

}

}

}

**Exercise 2 - Dawson**

public class Inequality {

public static void main(String[] args) {

// list of incomes in thousands

int[] income = {2,10, 532, 4, 53, 28, 291, 38, 6, 17, 73, 21};

int sum = 0;

int average;

int total = 0;

for (int i = 0;i< income.length;i++)

{

sum = sum + income[i];

}

average = sum/income.length;

System.out.println(" Average of income array : " + average);

for (int i = 0; i < income.length; i++) {

if (income[i] > average) {

System.out.println(income[i] + " ");

System.out.println("Total values above average " + ++total);

}

}

}

}

**Output**

Average of income array : 89

532

Total values above average 1

291

Total values above average 2

**Exercise 3 - Dawson**

for(row=0; row<n; row++) {

sum=0;

System.out.print("col "+row+": ");

for(col=0; col<n; col++) {

int value = a[col][row];

sum += value;

if (col > 0)

System.out.print(" + "); // print plus before all except 1st

System.out.print(value);

}

System.out.println(" = "+sum);

if(sum != targetSum) {

System.out.println("Row sum incorrect : Not a magic Square !");

return;

}

}

**Exercise 4 - Dawson**

sum=0;

System.out.print("diagonal: ");

for(int pos=0; pos<n; pos++) {

row = pos;

col = pos;

int value = a[row][col];

sum += value;

if (pos > 0)

System.out.print(" + "); // print plus before all except 1st

System.out.print(value);

}

System.out.println(" = "+sum);

if(sum != targetSum) {

System.out.println("Diagonal is incorrect : Not a magic Square !");

return;

}