**Chapter 4 Test Review**

**Section 1 (Handwritten code) - Brute Force Logic**

My grandson is about as many days as my son is weeks, and my grandson is as many months as I am in years. My grandson, my son and I together are 140 years. Can you handwrite code to calculate my age in years?

**Section 2 - Multiple Choice**

What is the printout after the following loop terminates?  
  
int number = 25; int i = 0; Expected Output:  
boolean isPrime = true;  
for ( i = 2; i < number; i++) {  
     if (number % i == 0) {  
         isPrime = false;

break;  
     }  
}  
System.out.println("i is " + i + " isPrime is " + isPrime);

int balance = 10;  
while (balance <10)

{ Is this an infinite loop? YES NO

     if (balance < 9) break;  
     balance = balance - 9;

}

What is the output of the following fragment?  
 Expected Output  
int i = 1;  
int j = 1;  
while (i < 5) {  
     i++;  
     j = j \* 2;  
}  
System.out.println(j);

 What is the output of the following fragment?  
  
         for (int i = 0; i < 15; i++) {  
             if (i % 4 == 1)  
                 System.out.print(i + " ");   
         }

**Section 3 – LiveLab** P\_DivideBy2

Create a program will accept an integer from the user. The program will then calculate how many times that number can be divided by 2 and outputs the answer. The output should be formatted different based on the number of times two was able to be divided into the user’s number. Different output occurs when:

* 2 cannot be divided into the user’s number
* 2 can only be divided into the user’s number once
* 2 can be divided into the user’s number multiple times.

Examples

Enter an integer

26

26 can only be divided by two 1 time.

Enter an integer

57

57 cannot be divided by 2.

Enter an integer

60

60 can be divided by two 2 times.