Zadanie 2:

Iterator:

public interface Iterator1BINT {  
 void first();  
 void next();  
 boolean isDone();  
 int currentItem();  
}

2a:

import java.util.NoSuchElementException;  
  
public class Generator implements Iterator1BINT {  
  
 private final int start;  
 private final int end;  
 private int position;  
  
 public Generator(int start, int end) {  
 this.start = start;  
 this.end = end;  
 first();  
 }  
  
 @Override  
 public void first() {  
 position = start;  
 }  
  
 @Override  
 public void next() {  
 if (!isDone())  
 position++;  
 else  
 throw new NoSuchElementException();  
 }  
  
 @Override  
 public boolean isDone() {  
 return position > end;  
 }  
  
 @Override  
 public int currentItem() {  
 if (!isDone()) {  
 return position;  
 }  
 return 0;  
 }  
}

2b:

import java.util.function.Predicate;  
  
public class LiczbyPierwsze implements Iterator1BINT {  
  
 Iterator1BINT iterator;  
 Predicate<Integer> predicate;  
  
 public LiczbyPierwsze(Iterator1BINT iterator, Predicate<Integer> predicate) {  
 this.iterator = iterator;  
 this.predicate = predicate;  
 }  
  
 @Override  
 public void first() {  
 iterator.first();  
 }  
  
 @Override  
 public void next() {  
 iterator.next();  
 }  
  
 @Override  
 public boolean isDone() {  
 return iterator.isDone();  
 }  
  
 @Override  
 public int currentItem() {  
 int liczba = iterator.currentItem();  
 if (predicate.test(liczba)) {  
 return liczba;  
 }  
 return 0;  
 }  
}

Main:

public class Main {  
  
 public static void Show(Iterator1BINT iterator) {  
 while (!iterator.isDone()) {  
 int a = iterator.currentItem();  
 if (a != 0)  
 System.*out*.print(a + " ");  
 iterator.next();  
 }  
 }  
  
 public static boolean Pierwsza(int liczba) {  
 if (liczba < 2)  
 return false;  
 for (int i = 2; i\*i <= liczba; i++) {  
 if (liczba % i == 0)  
 return false;  
 }  
 return true;  
 }  
  
 public static void main(String[] args) {  
 System.*out*.println("==========1==============");  
 *Show*(new Generator(10,52));  
 System.*out*.println();  
  
 System.*out*.println("==========2==============");  
 *Show*(new LiczbyPierwsze(  
 new Generator(1, 50),  
 Main::*Pierwsza* ));  
 System.*out*.println();  
 }  
}