A baby while loop:
```java
int n = 10;
while (n < 15){
    System.out.println(n);
    n = n + 1;
}
```

A while loop with a special goal:
```java
int num = 300000;
int splitCount = 0;
while (num > 1){
    num = num/2;
    splitCount++;
}
System.out.println("split count:" + splitCount);
```

1. Complete the while loop below, which should print a column of numbers from 1000 down to 100 in steps of 2: 1000 - 998 - 996 - … - 102 - 100

```java
int n = ;
while ( ){
    System.out.println ( );
    n = ;
}
```

2. Write a while loop that prints
   - blah (1)
   - blahblah (2)
   - blahblahblahblah (4)
   - blahblahblahblahblahblahblah (8)

doubling in length on each line, until a line longer than 150 characters has been printed.
3. Suppose s is a String. Write a while loop that prints s until a b or B is reached (or until the end of the String is reached). How would you do this as a for loop?

4. Suppose s is a String. Write a while loop that counts the number of capital A’s or Capital B’s in s.

5. Write a method called triString, which is passed a String parameter, and then prints the word in triangle form:

If dogs is passed to triString, this is what’s printed:

d
oo

4ggg

4sss

6. You start one day with a penny, and then on every subsequent day your money doubles – so on day two you have 2 cents, day 3 4 cents, day 4 you have 8 cents, and so forth. On what day do you exceed one million dollars for the first time?

7. Write a method called nearMirrorImage, which is passed a string, and returns the number of times it deviates from being a palindrome. Thus, for otjo (1 deviation) canal (1 deviation), donkey (3), darted (2), and so forth.

The numerical palindrome problem – A number is a palindrome if it’s the same forwards and backwards: 1984891, 3223. Turns out if a number is NOT a palindrome, then you can reach one (most of the time) by adding the number and its reverse and repeating the process until you reach one: (so: start, say, with 166, then 166+661=827, etc).

166->827->1555->7106->13123->45254

This is program 4: write code to accept a start number, then run the above process up to 10 times to try to reach a palindrome. (We provide driver)