Debugging spot the difference: Bubblesort

The following is a correct fragment of code (in Java) for sorting an array.

```java
public static void Sort(int[]a, int n)
{
  for (int p=1; p <= n-1; p++)
  {
     for (int i=0; i < n-p; i++)
     {
         if (a[i] > a[i+1])
         {
             swap(a, i, i+1);
         }
     }
  }
}
```

The following version has mistakes. Can you spot 16 differences?

```java
public static Sort(int{}a; int m)
{
  for (int p=0, p < n-1, p++)
  {
     For (int i; i < n-q; i++)
     {
         if (a[i] < a[i+1];
         {
             Swap(a, i, i+l)
         }
     }
  }
```

Computational Thinking Link
Debugging code involves being able to spot very subtle mistakes like these. The only trouble is you don't have the right answer to pattern match against: the pattern matching is against patterns in your head. The more you see and work with examples of correct code the stronger the patterns in your head will be. Actively checking for particular patterns where things go wrong, like "is the inequality right?" is an important technique. Attention to small details is an important part of computational thinking.