**Numbers and Strings  
Workshop 6**

**In this workshop, you’ll learn:**

* Numbers
* Strings

## Questions

1. What is the initial capacity of the following string builder?

StringBuilder sb = new StringBuilder("Able was I ere I saw Elba.");

1. Consider the following string:

String hannah = "Did Hannah see bees? Hannah did.";

a. What is the value displayed by the expression hannah.length()?

b. What is the value returned by the method call hannah.charAt(12)?

c. Write an expression that refers to the letter b in the string referred to by hannah.

3. How long is the string returned by the following expression? What is the string?

"Was it a car or a cat I saw?".substring(9, 12)

4. In the following program, called [ComputeResult](http://docs.oracle.com/javase/tutorial/java/data/QandE/ComputeResult.java" \t "_blank), what is the value of result after each numbered line executes?

public class ComputeResult {

public static void main(String[] args) {

String original = "software";

StringBuilder result = new StringBuilder("hi");

int index = original.indexOf('a');

/\*1\*/ result.setCharAt(0, original.charAt(0));

/\*2\*/ result.setCharAt(1, original.charAt(original.length()-1));

/\*3\*/ result.insert(1, original.charAt(4));

/\*4\*/ result.append(original.substring(1,4));

/\*5\*/ result.insert(3, (original.substring(index, index+2) + " "));

System.out.println(result);

}

}

## Exercises

1. Show two ways to concatenate the following two strings together to get the string "Hi, mom.":

String hi = "Hi, ";

String mom = "mom.";

1. Write a program that computes your initials from your full name and displays them.
2. An anagram is a word or a phrase made by transposing the letters of another word or phrase; for example, "parliament" is an anagram of "partial men," and "software" is an anagram of "swear oft." Write a program that figures out whether one string is an anagram of another string. The program should ignore white space and punctuation.