4. (100 points) Instead of using == we use `string1.compareTo(string2)`. Explain what a value less than zero, zero, and greater than zero mean in String comparison. Report for the following examples if the value will be greater than, equal to, or less than zero:
   1. String x = "unicorn"; x.compareTo("narwhal");
   2. String x= "bunny rabbit"; x.compareTo("kitty");
   3. String x = "MOOSE"; x.compareTo("moose");
   4. String x = "fluffydog"; x.compareTo("fluffydog");

string1.compareTo.string2 < 0 means string 1 comes first

string1.compareTo.string2 = 0 means both strings would be the same

string1.compareTo.string2 > 0 means string 2 comes first

1) greater than 0

2) less than 0

3) less than 0

4) equal to 0

5. (100 points) Write a small program that asks the user to enter an integer.
If it is between 1 and 100 (inclusive), print "Square Root: " and the square root of that number.
Then, using the result of calculating the square root, square that value.
Print this result as "Square Root Squared: " and the resulting value.
Otherwise (if the value is not between 1 and 100), just print "Squared: " and the square of that number.

Try It and Learn! When testing this program after you build it, try using some values that have strange square roots.
Can you get a floating point roundoff error when you square the square root of some numbers?

Yes you can, $\sqrt{2}$ rounds off to $1.\bar{9}$ after Squaring it again causing a roundoff error

.java will be attached for this Problem