```
* One algorithm for converting a decimal number to the string representation of a
 * binary number is as follows:
 *
 * while (the decimal number is not 0) {
 * the binary representation = remainder of the division of the decimal number by 2 + the
binary representation
 * the decimal number = the decimal number / 2
 * }
```

```
if (decimalNumber <= 0)
{
        return null;
}
binaryNumber =  "";
while (decimalNumber != 0)
{
        binary = (decimalNumber % 2) + binaryNumber;
        decimalNumber = decimalNumber / 2;
}
return binaryNumber;
```

```
* One algorithm for converting the string representation of a binary number to a decimal
number is as follows:
 *
 * for (int i = 0; i < length of the binary representation; i++) {
 * the decimal number = the decimal number + digit in the binary representation * 2 to the
power of i
 * }
```

```
decimalNumber = 0;
int length = binaryRepresentation.length();
if (binaryRepresentation.length() = 0)
{
	return 0;
}
for (int i = 0; i <= length; i++)
{
	decimalNumber = decimalNumber + (int)((Integer.parseInt(binaryRepresentation.charAt
(length-i)) * Math.pow(2, i));
}
return decimalNumber;
```