Problem 1. Write a program that asks for two real numbers, representing the base and the height of a triangle. Compute the area and print a message like this:

```
The area of a triangle with base 6 and height 10 is 30.
```

Problem 2. Write a program that asks for the two smaller sizes of a triangle and calculates the bigger size. After that, print a message.

Problem 3. Write a program that asks the coefficients (a, b and c) of a quadratic equation

$$ax^2 + bx + c = 0$$

and calculate the two possible solutions. After that, print a message.
Note: to calculate the square root you have to `import math` at the top of the file and use the `math.sqrt` function.

Problem 4. Write a program that generates a number between 0 and 9. Then ask the user to try to guess it. Check the given number against the random one and print a message like this:

```
Can you guess my number? 9
Your guess is: True
```

Remember: You cannot use an `if` statement.
Note: to generate a random you have to `import random` at the top of the file and use the `random.randint` function.

Problem 5. Write a program that asks for the weight and the height of a person and calculates the Body Max Index. To compute it, divide the weight by the square of the height. Then print a group of messages like this:

```
[0, 18.5)?      False
[18.5, 25)?     True
[25, 30)?       False
[30, 50)?       False
```

Note: Notice that the values of the second column (bools) are aligned. Using the Format Specification Mini-Language try to do it yourself.

Problem 6. Write a program that asks for a name and 2 marks of a student. Calculate the average and check if that average values greater or equal than 5. After that, print a message like this:

```
The average mark of Pepe is 3.25
Pass the subject: False
```

When printing the average mark make sure that you use only 2 decimal digits.
Remember: You cannot use an `if` statement.

Problem 7. Write a program that prompts the user to enter a distance in meters and print the equivalent distance in yards, feet and inches.
Note: You can google the conversion formulas.

Problem 8. Write a program that asks for 3 numbers (they can be written in decimal, hexadecimal or binary format) and prints a message with the max and the min numbers.

Problem 9. Write a program that asks for the size of a square and prints this square on the screen. Look at these examples:

```
What is the size of the square? 3
***
* *
***

What is the size of the square? 5
*****
*   *
*   *
*   *
*****

What is the size of the square? 7
*******
*     *
*     *
*     *
*     *
*     *
*******
```