# Chapter 12: Numbers - Exercises

## Exercise 12 - 01: Using the Math.sqrt method

Write a program that prints the following table using the sqrt method in the Math class.

| Number | SquareRoot |
|---|---|
| 0 | 0.0000 |
| 2 | 1.4142 |
| ... | |
| 18 | 5.2426 |
| 20 | 5.4721 |

## Exercise 12 - 02: Approximating the square root

Implement the sqrt method. The square root of a number, num, can be approximated by repeatedly performing a calculation using the following formula:

nextGuess = (lastGuess + (num / lastGuess)) / 2

When nextGuess and lastGuess are almost identical, nextGuess is the approximated square root.
The initial guess will be the starting value of lastGuess (can be 1). If the difference between nextGuess and lastGuess is less than a very small number, such as 0.0001, you can claim that nextGuess is the approximated square root of num.