

Introduction

Learning Targets:

- You can explain the term *algorithm*
- You can apply a basic algorithm for a given problem

1 Group Work: What does *Algorithm* mean?

Work in pairs: look up the term algorithm and note down its definition. List down two examples from the real world.

Also do some research on the issue of *performance*. Is this a necessary feature when working with algorithms? Can you give examples?

Prepare this in a small PowerPoint document.

2 Practical Task

Write a program in Java which can determine the prime numbers. Here are some guiding thoughts:

Search for numbers which can be divided by the number itself. Three numbers you can omit from the beginning: 0 (null), 1 and the number itself.

If any number can not be divided by another number, you have found a prime number. If you have a number which can be divided by another number, you don't have a prime number.

In order to test numbers you need the modulo-operator which will determine if this number can be divided by its divisor.

Example:

$7 : 3 = 2 \text{ Rest } 1$

With modulo:

$7 \bmod 3 = 1$