 

Activity 1- Inglês IFRS/Campus Porto Alegre

Profa Cláudia Estima

Roteiro de Atividade

1. Ler o texto lentamente e sublinhar TODAS as palavras parecidas com o português, mesmo que se repitam. Todas as palavras já conhecidas e também as palavras novas que sejam parecidas com o português na sua escrita. Sublinhar com o marcador de texto do computador ou imprimir, sublinhar, tirar uma foto e enviar. (Atenção são três páginas de texto).
2. Conferir em dicionários sugeridos pela professora algumas palavras desconhecidas (entre 8 e 10 palavras no máximo). Listá-las aqui com seu significado em português. Diga o nome do dicionário utilizado.
3. Centrar a atenção nas palavras sublinhadas e a partir delas escrever em língua portuguesa o assunto do texto em 3 linhas digitadas.
4. Enviar para “envio de tarefa ” – um documento Word contendo os itens discriminados acima (itens 1 a 3)

**What is an Algorithm? Types, Applications, and Characteristics**

https://www.analyticssteps.com/blogs/what-algorithm-types-applications-characteristics

An algorithm is a popular term that you must have heard in numerous areas, including computer programming, mathematics, and even in our daily lives.

An algorithm can be clarified as a step by step process or formula for problem-solving or you can say that it is a set of instructions formulated to conduct a particular work. So, the best example for this is a recipe as it explains what must be perpetrated, step by step.

Algorithms are normally built in underlying languages, that means it can be carried out in more than one programming language. Algorithms are are used as specifications for data processing, doing mathematics, automated reasoning, and several other chores like this.

Accordingly, this blog will introduce you to the definition of the algorithm, types of an algorithm, characteristics of algorithm, its advantages and disadvantages, applications of an algorithm, programming algorithm, etc.

**Definition of an Algorithm**

An algorithm is a bunch of self-contained succession of guidelines or activities that contain limited space or grouping such that it will give us an outcome to a particular issue in a limited measure of time.

It is a sensible and numerical way to tackle or break an issue using any conceivable strategy and it is a bit by bit process to tackle an issue.

A good algorithm ought to be advanced in phrases of time and space. Thus, various sorts of issues require various kinds of algorithmic-strategies to be illuminated in the most improved way. For example, you try cooking a new recipe; first, you read the instructions and then follow the steps one by one as given in the recipe. Thus, after following the steps you will get your food ready. Likewise, algorithms help to manage a task in programming to get the normal output. The algorithms designed are language-independent, that is they are just simple instructions that can be executed in any language. However, the output will be similar, as anticipated.

**7 Types of Algorithms**

1 **Brute Force Algorithm:** A brute force algorithm essentially attempts all the chances until an acceptable result is found. This is the most fundamental and least complex type of algorithm. Such types of algorithms are moreover used to locate the ideal or best solution as it checks all the potential solutions. Also, it is used for finding an agreeable solution (not the best), basically stopping when an answer to the issue is found. It is a clear way to deal with an issue that is the first approach that strikes our mind after observing the issue.

2 **Recursive Algorithm** : This type of algorithm depends on recursion. In recursion, an issue is comprehended by breaking it into subproblems of a similar kind and calling itself over and over until the issue is unravelled with the assistance of a base condition.It solves the base case legitimately and afterwards recurs with a more straightforward or simpler input every time. It is used to take care of the issues, which can be broken into less complex, or more modest issues of the same sort.

3 **Dynamic Programming Algorithm**: This type of algorithm is also called the memoization technique. This is because, in this, the thought is to store the recently determined outcome to try not to figure it over and over. In Dynamic Programming, partition the unpredictable issue into more modest covering subproblems and putting away the outcome for sometime later. In simple language, we can say that it recollects the previous outcome and uses it to discover new outcomes.

4 **Divide and Conquer Algorithm**: In the Divide and Conquer algorithm, the thought is to tackle the issue in two areas, the first section partitions the issue into subproblems of a similar sort. The second section is to tackle the more modest issue autonomously and afterwards add the joined outcome to create the last response to the issue.

5 **Greedy Algorithm**: Now coming towards another type that is a greedy algorithm, so in this, the solution is created portion by portion. The finding to select the following role is accomplished on the purpose that it provides the sudden help and it never deems the options that had assumed lately.

6 **Backtracking Algorithm**: In this type of algorithm, the issue is worked out steadily, for example, it is an algorithmic-procedure for taking care of issues recursively by attempting to construct an answer steadily, each piece, in turn, eliminating those solutions that neglect to fulfil the conditions of the situation at any point of time.

7 **Randomized Algorithm**: In this type of algorithm, a random number is taken for deciding at least once during the computations.