

AQA Computer Science A Level

4.1.1 - Programming

Flashcards

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What **two things** are data types defined by?



What **two things** are data types defined by?

1. The values they can take
2. The operations that can be performed on them



Is -44 an integer?



Is -44 an integer?

Yes. An integer is a whole number, positive or negative, including zero.



Which data type can
only be true or false?



Which data type can only be true or false?

Boolean



What is a user-defined data type?



What is a user-defined data type?

A data type derived from existing data types in order to create a customised data structure.



What is meant by assignment?



What is meant by assignment?

Giving a constant or variable a value.



What is meant by iteration?



What is meant by iteration?

Repeating an instruction.



What is meant by a subroutine?



What is meant by a subroutine?

A named block of code containing a set of instructions designed to perform a frequently used operation.



In which type of iteration is the number of repetitions required not known before the loop starts?



In which type of iteration is the number of repetitions required not known before the loop starts?

Indefinite iteration



What visible feature of program code signifies nesting?



What visible feature of program code signifies nesting?

Indentation



Using integer division,
what is $14 \text{ DIV } 3$?



Using integer division, what is $14 \text{ DIV } 3$?

4



Using the modulo operation,
what is $30 \text{ MOD } 4$?



Using the modulo operation, what is $30 \text{ MOD } 4$?

2



What is $1 \text{ XOR } 1$?



What is $1 \text{ XOR } 1$?

0



Name two advantages of using constants over hard-coded values



Name two advantages of using constants over hard-coded values

1. Constants can be given identifier names, making code easier for a human to understand
2. When updating a value, constants only need updating at one position in code

What is meant by concatenation?



What is meant by concatenation?

Joining two or more strings together to form a new, longer string.



What is a seed value used for?



What is a seed value used for?

Generating random numbers.



What name is given to the code which is run to handle an exception?



What name is given to the code which is run to handle an exception?

Catch block



What name is given to a type of subroutine which always returns a value?



What name is given to a type of subroutine which always returns a value?

Function



What are parameters used for?



What are parameters used for?

Passing data between subroutines in programs.



What name is given to the actual value passed by a parameter?



What name is given to the actual value passed by a parameter?

Argument



What type of variable can be accessed from any part of a program?



What type of variable can be accessed from any part of a program?

Global



Name three items stored
in a stack frame



Name three items stored in a stack frame

1. Return addresses
2. Parameters
3. Local variables



What is meant by a recursive subroutine?



What is meant by a recursive subroutine?

A subroutine which is defined in terms of itself.



What is meant by a base case?



What is meant by a base case?

The terminating situation in recursion that does not use recursion to produce a result.



What error will occur if a recursive subroutine never meets its base case?



What error will occur if a recursive subroutine never meets its base case?

Stack overflow

