

# OCR Computer Science AS Level

## 1.2.3 Introduction to Programming

### Flashcards



What are the three main programming constructs used in procedural programming?



What are the three main programming constructs used in procedural programming?

- Sequence
- Selection
- Iteration



How does assembly language differ from machine code?



How does assembly language differ from machine code?

Assembly language uses mnemonics rather than binary. One line in assembly language is equal to one line in machine code.



What is the function of the STA  
mnemonic?



What is the function of the STA mnemonic?

Storing the value in the Accumulator at the given memory address.



What is the function of the BRP  
mnemonic?





What is the function of the BRP mnemonic?

Branches to a given address if the value in the Accumulator is positive. It is a conditional branch.



# Describe how selection works



## Describe how selection works

A certain block of code is run if a specific condition is met, using IF, ELSE IF and ELSE statements.



# How do variables and constants differ?



# How do variables and constants differ?

The value of a constant cannot be edited by the program during execution while the contents of a variable can be changed.



# When might constants be used?



# When might constants be used?

For values that do not need to be changed or to prevent a value from being accidentally changed.



# Define what is meant by a function





# Define what is meant by a function

A named block of code that performs a specific task and must always return a single value.



# What is the role of the MOD function?



# What is the role of the MOD function?

MOD (or %) is used to find the remainder when a number is divided by another.



What is the result of  
 $16 \text{ DIV } 5$ ?



What is the result of  $16 \text{ DIV } 5$ ?

3



# What are relational operators used for?



# What are relational operators used for?

Relational operators are used to make comparisons between two values and produce a result of either True or False.



What is the function of the `==` operator?





What is the function of the `==` operator?

`==` is used to check whether a value is identical to another.



# Give three Boolean operators



Give three Boolean operators

AND, OR and NOT.



State the result of the following  
section of code:

```
text = 'computer science'  
text.substring(10, 3)
```



State the result of the following section of code:

```
text = 'computer science'  
text.substring(10, 3)
```

cie



What is the pseudocode used to open a file named 'compsci.txt' and write 'computer science' to it?



What is the pseudocode used to open a file and write 'computer science' to it?

```
myFile = openWrite("compsci.txt")  
myFile.writeLine("computer science")  
myFile.close()
```



State the function of the following piece of code:

$6**4$





State the function of the following piece of code:

```
6**4
```

Raises 6 to the power of 4.



What programming structure is used when a certain section of code needs to be executed while a certain condition remains true?



What programming structure is used when a certain section of code needs to be executed while a certain condition remains true?

Iteration - specifically a WHILE loop.

