

AQA Pseudocode Cheatsheet

Variables

Assignment

```
myAge ← 36
```

Constants

```
constant pi ← 3.14
```

Operators

Arithmetic Operators

```
4 + 5 #add
9 - 6 #subtract
2 * 4 #multiply
6 / 3 #divide
7 MOD 2 #modulus
8 DIV 3 #integer division
```

Relational Operators

```
myAge = 36 #equal
lives ≠ 0 #not equal
coins < 1 #less than
score > 0 #greater than
marks ≤ 40 #less than or equal
marks ≥ 80 #greater than or equal
```

Boolean Operators

```
(age > 18) AND (age < 60)
(hour < 9) OR (hour > 17)
NOT (day = 'Sunday')
```

Casting

String to Integer

```
STRING_TO_INT('36')
```

String to Real

```
STRING_TO_REAL('3.14')
```

Integer to String

```
INT_TO_STRING(36)
```

Real to String

```
REAL_TO_STRING(3.14)
```

Character Conversion

```
CHAR_TO_CODE('0')
CODE_TO_CHAR(75)
```

Subroutines

Subroutine Definition

```
SUBROUTINE sum(n1,n2)
  OUTPUT n1 + n2
ENDSUBROUTINE
```

Subroutine with Return Value

```
SUBROUTINE sum(n1,n2)
  RETURN n1 + n2
ENDSUBROUTINE
```

Call a Subroutine

```
sum(8,9)
result ← sum(8,9)
```

Input/Output

Input

```
password ← USERINPUT
```

Output

```
OUTPUT 'You have logged in successfully'
```

Arrays

Declaration

```
ages ← ['Dan','Ali']
users ← [4, 4]
```

Assignment

```
score[0] ← 59
users[1][3] ← 'Ninja01'
```

Length

```
LEN(score)
```

Selection

If-Then-Else

```
IF (hour < 12) THEN
  OUTPUT 'Good Morning!'
ELSE IF (hour < 18) THEN
  OUTPUT 'Good Afternoon!'
ELSE
  OUTPUT 'Good Evening!'
ENDIF
```

Iteration

FOR Loop

```
FOR i ← 0 TO 9
  OUTPUT 'i = ' + i
ENDFOR
```

WHILE Loop

```
WHILE password ≠ 'Password123'
  password ← USERINPUT
ENDWHILE
```

REPEAT UNTIL Loop

```
REPEAT
  password ← USERINPUT
UNTIL password = 'Password123'
```

String Operations

String Length

```
LEN(name)
```

Substrings

```
SUBSTRING(2,4,'Ali')
```

Position

```
POSITION('Dan','n')
```

Concatenation

```
OUTPUT 'Hi ' + name
```

Random Numbers

Random Numbers

```
i ← RANDOM_INT(1,9)
```

Commenting

Comment

```
#my note to me
```