variables

```
num = 44 //assignments
const k=34.56 //cons tants
global lives = 3 //global
```

input/output

```
pwd = input("Please enter a
password") //input
print("You have logged in
succes fully") //output
```

casting

```
str(127) //to string
int("45 ") //to integer
float( " 7.4 5") //to float
real(9 2.34) //to real
bool("F als e") //to boolean
```

commenting

```
// interesting comment
// another intere sting comment
```

selection

//IF-THEN-ELSE
```
if hour < 12 then
        pri nt( "Good Morning!")
elseif (hour < 18) then
        pri nt( "Good Aftern -
oon!")
else
        pri nt( "Good Evening!")
endif
```
//SWITCH

selection (cont)

```
> switch day:
    case 6:
        print("Saturday")
    case 7:
        print("Sunday")
    default:
        print("Weekday")
endswitch
```

Iteration

//FOR LOOP
```
for i = 0 to 9
        print ("i = " + i)
next i
```
//WHILE LOOP
```
while password != "Passw ord123"
        pas sword =
input( "Guess again")
endwhile
```
//DO WHILE LOOP
```
do
        pas sword =
input( "Guess again")
while password != "Passw ord123"
```

random numbers

```
i = random(1,9)
r = random (1.1, 7.5)
```

file handling

```
f = open("data.txt") //open
f.close() //close
f.read Line() //read line
f.writ eLi ne( "He llo") //write
line
while NOT f.endO fFile()
        print f.read Line()
endwhile //end of file
newFil e(" new dat a.txt")
//create new file
```

arrays

```
array scores[5] //declaration
score [0] = 23 //assi gnment
len(score) //length
```

sub programs

//PROCEDURE
```
procedure sum(n1,n2)
        pri nt(n1 + n2)
endpro cedure
```
//FUNCTION
```
function sum(n1,n2)
        ret urn(n1 + n2)
endfun ction
```
//CALL A PROCEDURE
```
sum(8,9)
```
//CALL A FUNCTION
```
result = sum(8,9)
```

operators

```
//COMPARISON OPERATORS
myAge == 36 //equal
lives != 0 //not equal
health < 1 //less
score > 0 //greater
marks <= 40 //less or equal
marks >= 80 //greater or equal
//ARIT HMETIC OPERATORS
4 + 5 //add
9 - 6 //subtract
2 * 4 //multiply
5 ^ 3 //exponent
6 / 3 //divide
7 MOD 2 //modulus
8 DIV 3 //quotient
//LOGICAL OPERATORS
age > 18 AND age < 60
hour < 9 OR hour > 17
NOT day == "Sunday"
//STRING OPERATORS
name.l ength //string length
name.s ubs tri ng(2,4)
name.l eft(3)
name.r ight(5) //subs tring
print( " hi" + name) //conc -
ate nation
name.upper
name.lower //case change
ASC(X)
CHR(75) //ASCII conver sation
```