

Taking Decisions Conditionals



Conditionals are blocks which can execute the commands enclosed in the c-shaped input slot based on a condition.

mouse down?

3 × var1 > var2 / 4

A condition could be a simple hexagonal block (predicate) or a complex expression in a hexagonal block.

Anything goes as long as the **result is either true or false**.

if

The **if block** only executes the blocks in the c-shaped input slot, when the condition is true. Otherwise it will just skip to the next part of the script.

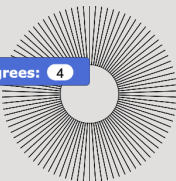
The **if else** block takes one of the two options.

Is the condition true, it will execute the blocks enclosed in the if section, otherwise the blocks of the else section.

if

else

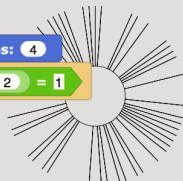
```
repeat 90
  arc radius: 50 degrees: 4
  turn 90 degrees
  move 100 steps
  move -100 steps
  turn 90 degrees
```



Every 4 degrees a line is drawn.

Only if a random number equals 1, a line is drawn.

```
repeat 90
  arc radius: 50 degrees: 4
  if pick random 1 to 2 = 1
    turn 90 degrees
    move 100 steps
    move -100 steps
    turn 90 degrees
```



Nesting Conditions

Logical Operators



Logical operators can be used to **connect** more than one **condition**.

You can find three of them in the Operators category.

and

or

not

not

false

true

not

true

false

The **not** operator **negates** the value in its input.

It turns true into false and the other way round.

The **and** operator takes two predicates and only **reports true, if all** of them are true.

true

and

true

true

true

and

false

false

false

and

false

false

true

or

true

true

true

or

false

true

false

or

false

false

The **or** operator takes two predicates and reports **true if one** of them is true.