

# Logo Help Sheets.

## Using Repeat and Procedures.

The repeat command may be used to cut down typing time, rather like using the copy command in a word processor, only this time you are copying an action rather than words.

The syntax for the repeat command is as follows:

```
repeat [number of times] [[action]]
```

(notice that the action itself is written inside square brackets.

So, to produce a square of side 50 units you would type:

```
repeat 4 [fd50 rt90]
```

By designing a procedure you can actually teach the computer to learn a particular shape or object.

The syntax for a procedure is as follows:

```
To [object name]
```

```
repeat [number of times] [[action]]
```

```
end
```

The action may be written over several lines, as required.

The end command is very important, as it tells the computer to stop learning the object and that new commands are coming.

So, to teach the computer how to create a square, type:

```
To Square
```

```
repeat 4 [fd50 rt90]
```

```
end
```

No, each time the word Square is typed, the computer will draw a square of side 50 units.

Logo on actually has several 'home made' shapes which can be displayed by simply clicking on the appropriate icon.

There may be times when you want the same shape to be drawn, but you want that shape to be displayed at different sizes. It would be a chore if you had to redesign your procedure for each shape.

Using variables allows you teach the computer to draw a shape using different values for distance.

The syntax is:

```
To [object name] : [variable name]
```

```
repeat [number of times] [[action]]
```

```
end
```

Notice the colon in the first line.

So, to teach the computer to draw a square of any size type:

```
To Square : size
```

```
repeat 4 [fd :size rt90]
```

```
end
```

This time, whenever the word Square is typed it must be followed by a number to tell the computer how big the Square is to be drawn.