

1st grade:lesson 1

There is a lot of statements you can use besides **read**, **readln**, **write**, and **writeln**. Let's take an instance where you want something to happen that depends on the situation. There are a few ways you can effect this. There is the **while**_____ **do** expression , the **if** _____ **then** expression, and the **case** _____ **of** expression (where the underlined space represents the condition you will insert).

These are called **condition expressions**. You identify the conditions that will trigger a specific response.

We will cover all three in the first grade. See how easy things are in the first grade?

This lesson will concentrate on the while_____do expression.

Here is a sample of how it is used.

PROGRAM while_do;	{this will generate a sequential list of numbers}
VAR x:integer;	{defines x as an integer}
begin x:=1;	{gives x an initial value of positive 1}
while x <= 10 do	{sets up the condition}
begin	
writeln (x:2);	{writes the next sequential value of x and a <cr>}
x:= x +1;	{adds 1 to the previous value of x}
end ;	{of listing}
readln ;	{allows you to see what happened by requiring a <cr>}
end.	{of program}

Look at the program and try and determine what it does. It is a simple program. A picture of the results of this program is included on page 2. Don't look right away.

Take a look at the Program name line. The name is "while_do". Remember, no spaces are allowed in a program name so a '_' is used where a space would normally be placed.

Next, skip down to the line that reads

```
x:= 1;
```

this provides the initial value of the variable x. In this case it is positive 1. The statement could have read

```
x:= 1 ;
```

but it could not have read

```
x : = 1;
```

The initialization operator '=' must follow immediately after the variable...no spaces allowed.

One last thing before we look at the program. note the line

```
writeln (x:2);
```

this says write the value of x and give it 2 spaces then do a <cr>.

OK. Here is the result of the program. Did you figure it out?

A screenshot of a Turbo Pascal program window. The window has a title bar with the text "while_do". Inside the window, there is a list of numbers from 1 to 10, each on a new line, displayed in a monospaced font. The numbers are aligned to the left of the window.

That's lesson one. If you are happy about it get out a bag of m&m's and feast. If you aren't happy about it, then gt out a baag of m&m's and save it for the next lesson.... things may start to heat up soon.