Line 10 should have disappeared. Put line 10 back in by typing out the whole line again — not forgetting the line number!

■ Rewrite the program so that the computer really does print out the number typed in. Hint: taking out one whole line should do the trick.

■ Retype line 70 so that the program goes to line 80. LIST the program. RUN the program. Why didn't it run the same way as before?

■ Change line 60 so that the computer prints an A on the screen instead of the value of variable A.

■ Rewrite line 60 so that the computer prints the value of variable A once again. Remove line 10 (the REM line) completely. RUN the program. Does it run any differently?

■ Put in a new REMark on line 25. New lines can be added by simply typing the new number followed by the new statement. Put in a remark on line 25 to remind you what will happen next — it could be something like 'expects an input from the keyboard'. After you have typed the new line and

hit <CR>, LIST the program again and check that your new remark appears in the right place.

■ Rewrite the program so that it multiplies the number you type in by 10. You'll need to change line 50 to print something like THE NUMBER YOU TYPED MULTIPLIED BY 10 IS. This time we will not want to add to the value of the old variable, we'll wants to multiply it by 10. BASIC uses the * sign to mean 'multiply'. (Don't use an X because BASIC only recognises it as a letter, not as a multiplication sign.)

We have now covered quite a lot of ground. We have seen how to write comments, which BASIC calls REMarks, how to PRINT character strings on the screen, how to PRINT the value of a variable on the screen, and how to make the program GOTO a specified line number.
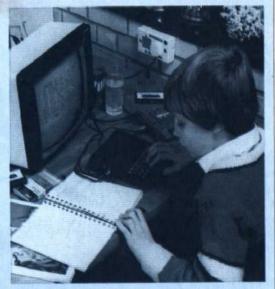
Next we'll see how to get out of a loop by using an IF-THEN statement. We'll find out how to get the program to 'perform' for us a specified number of times instead of looping forever. And we'll also see how to slow the program down to make the computer look as if it's really having to think.

And Then There Was BASIC

Today, BASIC is the world's most popular programming language. Computer languages were invented to allow the human operator to communicate more easily with the machine, and BASIC is one of the easiest to learn and use. It consists of instructions in simple English combined, where necessary, with the mathematical symbols found on a typewriter keyboard.

BASIC is a quick language to master. Within a few minutes of unpacking a microcomputer you can be writing simple programs. It was devised in 1965 at Dartmouth College, New Hampshire, with the express purpose of simplifying existing languages. The inventors were two teachers, Thomas Kurtz and John Kemeny. The universal use of BASIC has meant slight variations in the language have crept in. But the core of BASIC remains common to all manufacturers.

A program is a sequence of instructions which the computer executes to perform a specified task. The task might be to produce a monthly financial forecast, or to move a Space Invader across the television screen. The program appears as a series of numbered lines. Each line contains one instruction and the number allows the computer to obey the commands in the right order. Commands are quickly learnt and even the most complicated

BASIC has taken the mystique out of programming and made computing accessible to everyone

program uses nothing more than combinations and repetitions of the elementary commands.

Most computers arrive from the manufacturers with BASIC built in. Computers can also be programmed in 'machine code' (described as 'a low' level language because it is close in structure to the logic found in the electronic circuits). BASIC is a 'high' level language as it is nearer to everyday English. There are many other high level languages devised for more technical and specialised applications, but BASIC is the best introduction to them all. It's a simple and powerful language.