

Basic Flavours

TAB

On the Spectrum and ZX81 functions such as TAB, LEN, CHR\$ can be used without brackets, so that TAB(30), for example, can be written TAB 30

LEFT\$

None of these commands is available on the Spectrum or ZX81; their equivalents in Sinclair BASIC are:

LEFT\$(Z\$,N) replace by Z\$(TO N)
RIGHT\$(Z\$,N) replace by Z\$(LEN(Z\$)-N+1 TO)

RIGHT\$

MID\$(Z\$,P,N) replace by Z\$(P TO P+N-1)

When N=1 in a MID\$() command then the Sinclair equivalent is very much simpler than the above:

MID\$(Z\$,P,1) replace by Z\$(P)

MID\$

INSTR

This is not available on the Spectrum, ZX81, Commodore 64, Vic 20, and Oric-1, but you can write a sub-routine to replace it. Suppose that a program line is:

20 LET P=INSTR(AS,"FALL")

Replace it by:

20 LET X\$=AS: LET Z\$="FALL":GOSUB
9930:LET P=U

9929 STOP

9930 LET U=0:LET X=LEN(X\$): LET
Z=LEN(Z\$)

9940 FOR W=1 TO X-Z+1

9950 IF MID\$(X\$,W,Z)=Z\$ THEN LET U=W

9960 IF U=W THEN LET W=X-Z+1

9970 NEXT W

9980 RETURN

On the Spectrum and ZX81 replace line 9950 by:

9950 IF X\$(W TO W+Z-1)=Z\$ THEN LET
U=W

```
50 PRINT "START"
60 FOR X = 1 TO 5000
70 NEXT X
80 PRINT "STOP"
90 END
```

- **Loops 3** What result will be printed if the following program is run and you type in the number 60 when asked?

```
10 PRINT "THINK OF A NUMBER AND TYPE IT IN"
20 INPUT N
30 LET A = 100
40 FOR L = 1 TO N
50 LET A = A + 1
60 NEXT L
70 PRINT "THE VALUE OF A IS NOW ";A
80 END
```

- **Loops 4** What will happen if this program is run?

```
10 PRINT "I LIKE BASIC"
20 GOTO 10
30 END
```

- **Loops 5** What will you see on the screen if this program is run?

```
10 FOR Q = 1 TO 15
20 PRINT "I'M FEELING LOOPY"
30 NEXT Q
40 END
```

- **Read-Data 1** What result will be printed?

```
10 READ X
20 READ Y
30 READ Z
40 PRINT "WE'RE TESTING THE 'READ'
STATEMENT"
50 DATA 50,100,20
60 PRINT X + Y + Z
```

- **Read-Data 2** What will be printed on the screen if this program is run?

```
100 FOR L = 1 TO 10
110 READ X
120 PRINT "X = ";X
130 NEXT L
140 DATA 1.2,3.5,7.11,13.17,19.23
```

Answers in next issue

Answers To 'Exercises' On Pages 136-137

Variables

(A) (B6) ~~X~~ DS ~~X~~ XS (A12) (D9) (Q81) (Q5) ~~DE~~ HS

Arithmetic 1

10 LET B = 6
20 PRINT B

Arithmetic 2

10 LET A = 5
20 LET B = 7
30 LET C = 9
40 LET D = A + B + C
50 PRINT D

Arithmetic 3

17

Arithmetic 4

25
25

Comparisons 1

5

Comparisons 2

601 (integers are assumed)

Comparisons 3

10000

Print 1

PRINT "THE VALUE OF T IS ";T

Print 2

640 PRINT "SORRY, BUT YOUR SCORE OF " S; " IS TOO LOW"

Print 3

This was a deliberate mistake.

The semi-colon at the end of the line will cause a syntax error at run time. The program should read:

200 LET AS="THE HOME COMPUTER COURSE?"

210 LET BS="HOW DO YOU LIKE "

220 PRINT BS;AS

And the result would then have been:

HCW DO YOU LIKE THE HOME COMPUTER COURSE?

Input 1

6

Input 2

PLEASE TYPE YOUR NAME

HI (YOUR NAME) I'M YOUR COMPUTER

Note that the answers to 'Variables' will differ for some machines, which do not allow more than one alphabetic character (i.e., no numeric suffix)