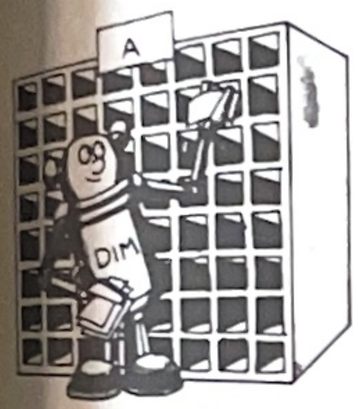
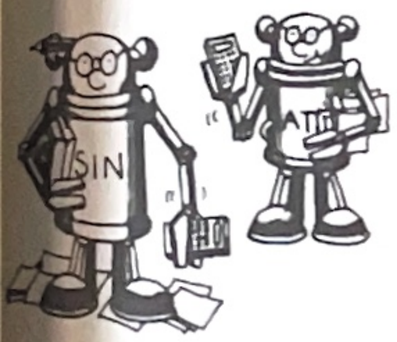
SGN tells the computer to find out the sign of a number. It produces −1 for a negative number, 0 for zero and +1 for positive numbers. E.g. SGN(−30) is −1, SGN(7) is +1 and SGN(0) is 0.



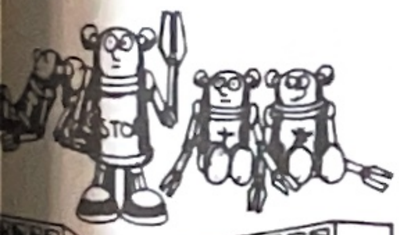
DIM tells the computer how much memory space will be needed for an "array" (a row or a grid). E.g. DIM X(6) tells the computer to set aside an area large enough to contain a row of 6 elements and labelled X. DIM A(8,8) means a memory space labelled A and big enough to take 8 elements across and 8 down is needed. The number of elements of data used in the program must correspond to the numbers in brackets after DIM or you will get a bug.

SQR takes square roots of numbers. E.g. SQR(16) gives the answer 4.



SIN calculates the sine of an angle. In a right-angled triangle the length of the side opposite an angle, divided by the length of the hypotenuse (the side opposite the right angle) is the sine of that angle. When you use SIN in a program, the angle you are using it with must be measured in radians, not degrees.

ATN is one of the trig. functions which computers can calculate (see also SIN above). It stands for arctangent and it is important to remember that it gives an answer in radians, not degrees. You will need to use a maths book to find out how this works if you do not already know about it.



STOP tells the computer not to go any further in a program. Computers other than the ZX81 can use END instead.

PEEK is a way of finding out what is in a specific area of the computer's memory. You need to use it with a number which specifies an "address" in the memory.
NB not used on BBC.

POKE is a special way of putting information in the computer's memory by using a memory "address".
NB not used on BBC.

ASCII chart

Code number	ASCII character	Code number	ASCII character
32	space	62	>
33	!	63	?
34	"	64	@
35	#	65	A
36	$	66	B
37	%	67	C
38	&	68	D
39	'	69	E
40	(	70	F
41	)	71	G
42	*	72	H
43	+	73	I
44	,	74	J
45	−	75	K
46	.	76	L
47	/	77	M
48	0	78	N
49	1	79	O
50	2	80	P
51	3	81	Q
52	4	82	R
53	5	83	S
54	6	84	T
55	7	85	U
56	8	86	V
57	9	87	W
58	:	88	X
59	;	89	Y
60	<	90	Z
61	=		

ZX81 code chart

Code number	ZX81 character	Code number	ZX81 character
11	"	41	D
12	£	42	E
13	$	43	F
14	:	44	G
15	?	45	H
16	(	46	I
17	)	47	J
18	>	48	K
19	<	49	L
20	=	50	M
21	+	51	N
22	−	52	O
23	*	53	P
24	/	54	Q
25	;	55	R
26	,	56	S
27	.	57	T
28	0	58	U
29	1	59	V
30	2	60	W
31	3	61	X
32	4	62	Y
33	5	63	Z
34	6		
35	7		
36	8		
37	9		
38	A		
39	B		
40	C		

Chart of screen sizes

	Max. number of characters across (or number of columns)	Max. number of lines down (or number of rows)
VIC 20	22	23
TRS-80	64	16
BBC	20/40/80	16/24/32
ZX81	32	22
ZX Spectrum	32	22
Apple	40	25