

```

18 RESTORE 1: a=32768: b=0: c="": MEMORY &7FFF [0004]
20 FOR x=100 TO 500 [71AC]
30   s=0 [4490]
40   FOR i=1 TO 10: READ x# [2F30]
50     x=VAL("&" + x#): s=s+x [118E]
60     POKE a, x: a=a+1 [9466]
70   NEXT [6A4A]
80   READ x#: x=VAL("&" + x#) [252E]
90   IF x<>s THEN 95 [8000]
100  NEXT [CA76]
110 PRINT "ok.": PRINT [8050]
120 SAVE "640x400.BIN", b, 40000, 41300 [3076]
130 END [C9C0]
140 PRINT "Fehler in Zeile": x: STOP [26F4]
150 DATA 00, 5E, 00, 00, 56, 01, 50, 4E, 02, 00, 479 [F000]
160 DATA 46, 03, 00, 00, 00, 00, 3A, 00, 10, 21, 255 [C502]
170 DATA 00, 40, 30, 04, 21, 00, 00, 13, 3E, 00, 1AE [61C2]
180 DATA 06, 00, 70, 06, 00, 00, 70, 06, 03, 00, 604 [00C0]
190 DATA 3C, 20, 05, 79, 04, 00, 00, 00, 05, 01, 3C6 [A01E]
200 DATA 00, 00, 3E, 03, 00, 3A, 00, 10, 00, 19, 310 [946E]
210 DATA 3D, 20, F7, 37, 3F, 00, 19, 00, 19, 00, 45D [34E4]
220 DATA 19, 00, 19, 00, 19, 00, 00, 00, 00, 00, 1E1 [12F2]
230 DATA 79, 01, 00, 00, FE, 00, 20, 04, 09, 3D, 1F2 [3A0C]
240 DATA 10, F0, 00, 00, 23, 00, 12, 00, 23, 00, 494 [74AA]
250 DATA 12, 00, 23, 00, 12, 00, 23, 00, 12, 19, 3C1 [5C70]
260 DATA 00, 23, 00, 12, 00, 23, 00, 12, 19, 00, 3AF [C37A]
270 DATA 00, 00, 00, 01, 00, 00, 00, 00, 00, 01, 0D2 [F344]
280 DATA 00, 00, 3E, 03, 00, 3A, 00, 10, 00, 19, 310 [A06C]
290 DATA 3D, 20, F7, 37, 3F, 00, 19, 00, 19, 00, 45D [C2C2]
300 DATA 19, 00, 19, 00, 19, 00, 06, 00, 79, FE, 30E [07AC]
310 DATA 00, 20, 04, 00, 30, 3D, 20, F0, 00, 70, 301 [C11C]
320 DATA 19, 06, 77, C9, 00, 00, FE, 01, 00, 05, 400 [0F70]

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330 DATA 7F, 4F, 00, 01, 00, 00, 00, 00, 00, 14F [0BAE]
340 DATA 01, 01, F3, 3A, 0E, 00, 3C, FE, 06, 32, 3C1 [00C4]
350 DATA 0E, 00, 20, 09, F1, CD, 01, 00, C9, 00, 4A7 [CC00]
360 DATA 00, 00, 00, 3E, 00, 32, 0E, 00, F1, 10, 207 [9FFA]
370 DATA 23, 00, 00, 00, 00, 00, 00, 00, 00, 00, 023 [D002]
380 DATA 00, 00, 00, 00, 00, 00, 00, 00, 00, 00, 000 [10F0]
390 DATA 00, 00, 00, 00, 00, 00, 00, 00, 00, 00, 000 [00F2]
400 DATA 00, 00, 00, 00, 00, 00, F5, C5, D5, C5, 374 [530C]
410 DATA 3E, 00, 00, 00, 00, 3E, 01, 21, 0F, 00, 10D [9F10]
420 DATA 96, 77, FE, 00, 20, 14, 3E, 40, CD, 45, 3CF [0006]
430 DATA 00, 01, 05, 0C, CD, 49, 01, 01, 0D, CD, 3AF [7006]
440 DATA 49, 00, 00, 00, 10, 10, 3E, C0, CD, 45, 201 [23F6]
450 DATA 00, 01, 05, 0C, CD, 49, 01, 00, 0D, CD, 3AE [90C4]
460 DATA 49, 00, E1, D1, C1, F1, CD, 01, 00, C9, 5F4 [D19E]
470 DATA 21, 01, 00, F3, 22, 49, 09, 21, 4A, 13, 367 [3D0E]
480 DATA 22, 04, 00, F0, C9, 00, F3, 3E, 40, CD, 505 [07EE]
490 DATA 00, 0C, CD, 19, 00, 3E, 02, CD, 0E, 0C, 43E [102A]
500 DATA 3E, C0, CD, 00, 0C, CD, 19, 00, 3E, 02, 472 [00F0]
510 DATA CD, 0E, 0C, 00, 21, C0, 00, 22, 49, 09, 41C [697E]
520 DATA 21, 50, 02, 22, 04, 00, F0, C9, 00, 00, 472 [0F54]
530 DATA 00, 00, 00, 00, 05, F5, 11, 00, 00, 19, 1FC [9400]
540 DATA 7C, FE, 10, 30, 04, 11, 50, C0, 19, F1, 3E9 [2D50]
550 DATA D1, C9, 00, 00, 00, 00, 00, 00, 00, 19A [FC06]
560 DATA 00, 00, 00, 00, 00, 00, F5, D5, 11, 00, 100 [4AAA]
570 DATA 00, 19, 7C, FE, 00, 20, 07, 37, 3F, 11, 2E1 [094E]
580 DATA 00, 3F, CD, 52, D1, F1, C9, 00, 00, 00, 409 [1570]
590 DATA 00, 00, 00, 00, 00, 00, 00, 00, 01, C9, 0CA [6070]
600 DATA 01, 21, 07, 01, C3, D1, 0C, D0, 01, C3, 669 [07AC]
610 DATA 50, 01, C3, 40, 01, C3, 00, 02, C3, 00, 45D [0702]
620 DATA 00, F0, A0, C9, 01, 47, 34, 30, 00, 47, 50A [A450]
630 DATA 32, 30, 00, 43, 40, 41, 02, 50, 4C, 4F, 390 [EC36]
640 DATA 04, 00, 00, 00, 00, 00, 00, 00, 00, 00, 0D4 [DC60]

```

[illegible]

[illegible]

579	DATA 7C,7C,12,12,28,28,48,48,88,88,38C	[FA4A]
580	DATA 88,88,3C,3C,18,18,3C,3C,3C,3C,198	[444E]
581	DATA 3C,3C,18,18,88,88,3C,3C,FF,FF,31E	[E58A]
582	DATA FF,FF,18,18,8C,8C,18,18,38,38,2D6	[8C8A]
583	DATA 18,18,18,18,3C,3C,7E,7E,18,18,284	[8E4A]
584	DATA 18,18,7E,7E,3C,3C,18,18,88,88,184	[3248]
585	DATA 24,24,66,66,FF,FF,66,66,24,24,42A	[3568]
586	DATA 88,88,88,88,88,88,88,88,88,88,888	[DF8A]
587	DATA 18,7E,7E,3C,3C,18,18,88,88,184	[4E5C]
588	DATA 24,24,66,66,FF,FF,66,66,24,24,42A	[3568]
589	DATA 88,88,88,88,88,88,88,88,88,88,888	[DF8A]

Listing 1. Basic-Lader für 640 x 400 Punkte (Schluß)

100	REM 640*400 Punkte Demo	[2D92]
110		[DD82]
120	MEMORY &3FFF:REM Speicherbereich fuer	[921A]
130	CALL &B1CB:REM RSX-Befehle ins Sys	[EB76]
140	IG488:REM schaltet die hoehe	[4C24]
150		[E18A]
160	FOR i=1 TO 400	[4510]
170	IFLOT,i,i:IFLOT,i,400-i:REM setze	[18FC]
180	n von 2 Punkten	[51F8]
190	NEXT	[85C2]
200	LOCATE 16,5:PRINT"640 * 400 Punkte"	[8218]
210		[8584]
220	REM Kreis zeichnen	[C854]
230	FOR i=0 TO 2*PI STEP PI/180	[C78E]
240	IFLOT,SIN(i)*50+288,COS(i)*50+288	[C488]
250	NEXT	[74EC]
260		[E28E]
270	INK 0,0:INK 1,26:BORDER 0:WHILE INK	[4FE8]
280	Y8="":WEND	[DCAA]
290	INK 0,26:INK 1,0:BORDER 26:WHILE INK	
300	EY8="":WEND:GOTO 270	

Listing 2. Diagonalen ohne Treppenstufen

110	640 mal 400 Punkte auf CPC 46	[E8EE]
120	4 / 664	
130	(c) by Dipl.-Ing. (FH) Bertho	[6E82]
140	ld Weber	
150	Schloerplatz 1 8488 Weiden i.	[662A]
160	d. OPf.	[E18A]
170	MEMORY &9999	[D174]
180	DATA 62,64,285,0,188,281,62,192,285,	[631C]
190	0,188,281,0	[86C8]
200	REM Assemblerprogrammchen einlesen	[2CA4]
210	FOR i=18880 TO 18812:READ a:POKE i,a	[13EC]
220	:NEXT	[8584]
230	REM beide Teilschirme loeschen	[DE76]
240	CALL 18880:MODE 2:CALL 18886:MODE 2	[F862]
250		[E88A]
260	REM Demografik zeichnen	[9D88]
270	FOR i=1 TO 188:x=i:y=i:GOSUB 498:NEX	[E956]
280	T	
290	FOR i=1 TO 188:x=188-i:y=i:GOSUB 498	[46D4]
300	:NEXT	[8888]
310	FOR i=0 TO 2*PI STEP PI/180	
320	x=(i/PI)*188:y=SIN(i)*50+288:GOSU	[12CA]
330	B 498	[5FE4]
340	NEXT	[4698]
350	r=50	[B93A]
360	FOR i=0 TO 2*PI STEP PI/72	
370	x=SIN(i)*r+288:y=COS(i)*r+288:GOS	[F758]
380	UB 498	[77EC]
390	NEXT	[679E]
400	r=88	[AC8E]
410	FOR i=0 TO 2*PI STEP PI/122	
420	x=SIN(i)*r+288:y=COS(i)*r+288:GOS	[E758]
430	UB 498	[77F4]
440	NEXT	[E68A]
450	REM Bildschirmbank wechseln und Posi	
460	tion verschieben	[9E86]
470	CALL &B019:OUT &BC88,5:OUT &B088,1:C	[1484]
480	ALL 18888	
490	CALL &B019:OUT &BC88,5:OUT &B088,0:C	[E4E8]
500	ALL 18886	[F756]
510	GOTO 440	[E3C4]
520		[78C6]
530	REM Unterprogramm plot x,y (je nach	
540	y Bildschirmbank waehlen)	[4988]
550	y=ROUND(y):x=ROUND(x)	[8AF4]
560	IF y MOD 2 THEN 520 ELSE 530	[4C6E]
570	OUT &BC88,5:OUT &B088,1:CALL 18888:P	[C3DA]
580	LOT x,y:RETURN	
590	OUT &BC88,5:OUT &B088,0:CALL 18886:P	[7F28]
600	LOT x,y-4:RETURN	

Listing 3. Demonstration des Prinzips