

AUTOZAS HT 1020Z - K.

PROGRAM ORG 7000H
LOAD 7000H
PROGRAM CALL 01C9H
LD A, 32
LD (POS), A
C1: LD BC, CALL SCROLL
LD A, (MIVOLT)
LD HL, (KEZDET)
C1: INC HL
LD (KEZDET), HL
CP (HL)
JR Z, C1
LD A, (HL)
LD (MIVOLT), A
LD HL, 15360
LD D, 0
AND 63
LD E, A
ADD HL, DE
LD (HL), 191
LD A, (POS)
LD HL, 14400
BIT 5, (HL)
CALLNZ, BALRA
BIT 6, (HL)
CALLNZ, JOBBRA
AND 63
LD (POS), A
LD E, A
LD D, 0
LD HL, 15360 + 960
ADD HL, DE
LD A, 191
CP (HL)
JR Z, UTKOZES
LD (HL), "*" *
LD BC, 8000
CALL 0060H
JR CIKLUS
UTKOZES: LD HL, 0
C2: LD DE, 15360
LD BC, 1024
LD IR
LD BC, 1000
CALL 0060H
AND 15
DEC A
JR NZ, C2
CALL 01C9H
C3: LD A, (14400)
BIT 0, A; NEWLINE
JR NZ, PROGRAM
BIT 1, A; CLEAR
JR Z, 1A18H
JR C3

SCROLL: LD HL, 15360 + 959
LD DE, 16383
LD B, 15
C4: PUSH BC
LD BC, 64
LD DR
POP BC
DJNZ C4
LD (HL), 32
LD DE, 15360 + 62
LD BC, 63
LD DR
RET
BALRA: DEC A
BIT 7, (HL)
RETZ
DEC A
RET
JOBBRA: INC A
BIT 7, (HL)
RETZ
INC A
RET
POS: DB "#"
MIVOLT: DB "#"
KEZDET: DB "##"
END

5 POKE 16526,0 : FOR E 16527,12
 10 CLS: INPUT "HEXA SZ AM (H nelküi) ";HX\$:HX\$=HX\$+CHR\$(0)
 20 X=USR(VARPTR(HX\$)):0
 30 IF X=INKEY\$:IF HX\$="" THEN 20 ELSE 10

ORG 7000H
 LOAD 7000H
 CALL 0AFFH
 INC HL
 LD E,(HL)
 INC HL
 LD D,(HL)
 PUSH DE
 POP HL
 CALL HEXDEC
 JR KHSIR

HEXDEC: LD B,0
 PUSH HL
 POP DE
 C1: LD A,(HL)
 OR A
 JR Z,CONT
 INC B
 INC HL
 JR C1

CONT: PUSH DE
 POP IX
 LD DE,0
 C2: LD A,(IX+0)
 SUB 48
 CP 0AH
 JR C,CONT2
 SUB 07

CONT2: PUSH BC
 DEC B
 LD H,0
 LD L,A
 JR Z,CONT3
 SLA B
 SLA B

C3: CALL TOL
 DJNZ C3

CONT3: ADD HL,DE
 PUSH HL
 POP DE
 INC IX
 POP BC
 DJNZ C2
 RET

KHSIR: PUSH DE
 POP HL
 JP 0AFFH

DECIMAL - HEXA FOR PIV

EMBEREVO HT 1880Z School Computers

ASSEMBLER LISTA:

ORG 7000H	DEC XX: LO HL, XX	DEC XXX	LIIRAS: LO HL, 15360	FEL: LO A, (YY)
LOAD 7000H	DEC (HL)		LO BC, 04	CP 2
CALL 01C9H	CONT3: LO HL, Y		PUSH AF	RET C
XOR A	LO A, (YY)		LO A, E	DEC A
LD HL, X	SUB (HL)		CP 00H	LD (Y), A
LD BC, 3	JR Z, UTKOZZ		JR Z, CONT1	LD A, (YTORTE)
LD DE, x+1	JR NC, DEC YY		C1: ADD HL, BC	XOR FFH
LD (HL), A	LD HL, YY		DEC E	LD (YTORTE), A
LD IR	INC (HL)		JR NZ, C1	RET Z
LD (HL), 63	JR CONT4		CONT1: LD A, D	LD A, (Y)
INC HL	DEC YY: LO HL, YY		CP 00H	DEC A
LD (HL), 15	DEC (HL)		JR Z, CONT2	LD (Y), A
LD HL, X	CONT4: LO BC, 1000		C2: INC HL	RET
PROGRAM: LO A, "*"	CALL 0000H		DEC D	LE: LO A, (Y)
LD HL, X	CALL 01C9H		JR NZ, C2	LD B, A
LD D, (HL)	PROGRAM		CONT2: POP AF	LD A, 13
LD HL, Y	UTKOZ: LO A, FFH		LD (HL), A	CP B
LD E, (HL)	LO (UTKOZES), A		RET	RET C
CALL LIIRAS	JR CONT3		BALRA: LO A, (x)	LD A, (Y)
LD A, 143	UTKOZZ: LO A, (UTKOZES)		CP 2	INC A
LD HL, XX	CP 00H		RET C	LD (Y), A
LD D, (HL)	JR NZ, VEGE		DEC A	LD A, (YTORTE)
LD HL, YY	JR CONT4		LD (X), A	XOR FFH
LD E, (HL)	VEGE: CALL 01C9H		LD A, (YTORTE)	LD (YTORTE), A
CALL LIIRAS	LD HL, S7OVEG		XOR FFH	RET NZ
LD HL, 14400	LD DE, 15360+396		LD (YTORTE), A	LD A, (Y)
BIT 5, (HL)	LD BC, 17		RET Z	INC A
CALL NZ, BALRA	LD IR		LD A, (x)	LD (Y), A
BIT 6, (HL)	VAR: LO A, (14400)		DEC A	RET
CALL NZ, JOBBRA	BIT 0, A		LD (x), A	END
BIT 3, (HL)	JR NZ, 7000H		RET	
CALL NZ, FEL	BIT 1, A		JOBBRA: LD A, (x)	
BIT 4, (HL)	JR NZ, 1A19H		LD B, A	
CALL NZ, LE	JR VAR		LD A, 61	
XOR A	S7OVEG: DB "OSZ INTE		CP B	
LD (UTKOZES), A	RESZVETEM		RET C	
LD HL, X	X: DB 0		LD A, (x)	
LD A, (XX)	Y: DB 0		INC A	
SUB (HL)	YTORTE: DB 0		LD (x), A	
JR Z, UTKOZ	XX: DB 0		LD A, (YTORTE)	
JR NC, DEC XX	YY: DB 0		XOR FFH	
LD HL, XX	UTKOZES: DB 0		LD (YTORTE), A	
INC (HL)			RET NZ	
JR CONT3			LD A, (x)	
			INC A	
			LD (x), A	
			RET	

Assembler

Gépi kód

Basic

```

1 LD B, 32
2 LD C, 166
3 LD D, 179
4 LD E, 132
5 LD HL, 3E1FH
6 LD A, (3840H)
7 CP 02H
8 RET Z
9 LD A, (3840H)
10 CP 20H
11 CALL Z, 7034H
12 LD A, (3840H)
13 CP 40H
14 CALL Z, 7036H
15 LD (HL), B
16 INC HL
17 LD (HL), C
18 INC HL
19 LD (HL), D
20 INC HL
21 LD (HL), D
22 INC HL
23 LD (HL), E
24 INC HL
25 LD (HL), B
26 DEC HL
27 DEC HL
28 DEC HL
29 DEC HL
30 DEC HL
31 JP 700BH
32 DEC HL
33 RET
34 INC HL
35 RET
  
```

```

7000 0620
7002 0EA6
7004 16B3
7006 1E84
7008 211F 3E
700B 3A40 38
700E FE02
7010 C8
7011 3A40 38
7014 FE20
7016 CC34 70
7019 3A40 38
701C FE40
701E CC36 70
7021 70
7022 23
7023 71
7024 23
7025 72
7026 23
7027 72
7028 23
7029 73
702A 23
702B 70
702C 2B
702D 2B
702E 2B
702F 2B
7030 2B
7031 C3 0B 70
7034 2B
7035 C9
7036 23
7037 C9
  
```

```

LET B = 128
LET C = 166
LET D = 179
LET E = 132
LET HL = 15903
LET A = PEEK(14400)
IF A = 2 THEN RETURN
LET A = PEEK(14400)
IF A = 32 THEN GOSUB 32
LET A = PEEK(14400)
IF A = 64 THEN GOSUB 34
POKE HL, B
LET HL = HL + 1
POKE HL, C
LET HL = HL + 1
POKE HL, D
LET HL = HL + 1
POKE HL, E
LET HL = HL + 1
POKE HL, B
LET HL = HL - 1
LET HL = HL - 1
LET HL = HL - 1
LET HL = HL - 1
GOTO 6
LET HL = HL - 1
RETURN
LET HL = HL + 1
RETURN
  
```

06	80	0E	A6	16	B3	1E	84
21	1F	3E	3A	40	38	FE	02
C8	3A	40	38	FE	20	CC	34
70	3A	40	38	FE	40	CC	36
70	70	23	71	23	72	23	72
23	73	23	70	2B	2B	2B	2B
2B	C3	0B	70	2B	C9	23	C9



Handwritten notes and scribbles in the bottom right corner of the page.

ORG 7000H
 LOAD 7000H
 LD A, H
 CP 80H
 RET NC
 LD A, L
 CP 30H
 RET NC
 EX DE, HL
 LD HL, 0000H
 LD B, H
 LD A, E

DIV : SUB 03H
 INC B
 JR NC, DIV
 ADD A, 03H
 ADD A, A
 DEC B — LD L, A
 OR A
 RRC D
 RES 7D

JR NC, ALL
 SET 0, L
 ALL : LDA, 06H
 RLC L
 RLC L
 RLC L
 OR L
 LD (CIM+1), A
 LD E, D
 LD D, H
 LD HL, 3C00H
 ADD HL, PE
 XOR A
 OR B
 JR Z, GRAPH
 LD DE, 40H

MUL : ADD HL, DE
 DJNZ MUL
 GRAPH: BIT 7, (HL)
 JR NZ, CIM
 LD (HL), 80H
 CIM : SET 0, (HL)
 RET

NÉV: GRAPH

KEZDŐCÍM : TETSZŐLEGES (PL.: 7000H)
 VÉGCIK : KEZDŐCÍM + 42

HASZNÁLATA : FŐLEG GÉPI PROGRAMOKBAN
 MINT SEGÉDRUTIN

X-KOORDINÁTA H-REGISZTERBE ($0 \leq x \leq 127$)

Y-KOORDINÁTA L-REGISZTERBE ($0 \leq y \leq 47$)

HIBASELTÉZÉS NINCSEN; ILLENKOR NEM CSINÁL
 SEMMIT CSAK <RET>-ET HÁLT VÉGRE

*** QUASAR® PROGRAM ***

PÉLDA A HASZNÁLATRA

ORG 7100H
 LOAD 7100H
 LD B, 127
 HÚZ: LD H, 47
 LD L, 47
 PUSH BC
 CALL 7000H
 POP BC
 DJNZ HÚZ
 HALT



← VÍZSZINTES
 VONALAT HÚZ

5:3 1

2:3 2

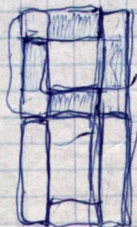
-1:3 = 2

JOYC

ORG 7100H
 LOAD 7100H
 LD B, 127
 H1: LD H, B
 PUSH BC
 LD B, 47
 H2: LD L, B
 PUSH BC
 CALL 7000H
 POP BC
 DJNZ H2
 POP BC
 DJNZ H1
 HALT

SET-TEL
 PONTONKÉNT! FEST FEHÉRRE
 (TESZT-RUTIN; A GRAPH ELLENŐR-
 ZÓJE)

ORG 7100H
 LOAD 7100H
 LD B, 127
 C1: LD C, 47
 C2: PUSH BC
 PUSH BC
 POP HL
 CALL 7000H
 POP BC
 DEC C
 JR NZ, C2
 DJNZ C1
 HALT



JO45

GET (T, H): T idig nol egy H maganszám hang
 $0 \leq \frac{T}{H} \leq 255$

ORG 7000H
LOAD 7000H
CALL 01C5H
LD HL, INDUL
LD (4180H), HL
JP 1A19H

INDUL: CALL 2B1BH
PUSH AF
RST 10H
DEC HL
CALL 2B1BH
PUSH AF
RST 10H
LD A, 7
OUT (31), A
LD A, 254
OUT (30), A
LD A, 8
OUT (31), A
LD A, 15
OUT (30), A
LD A, 0
OUT (31), A
POP AF
OUT (30), A
LD C, 0
POP AF
ORA
RETZ
LD B, A
~~CALL~~ 01C5H
XOR A
OUT (30), A
RET


```

HEX2: PUSH AF
      SRL A
      SRL A
      SRL A
      CALL KIIR
      POP AF
      PUSH AF
      AND 15
      CALL KIIR
      POP AF
      RET

```

```

KIIR: ADD A, 48
      CP 58
      JR C, CONT2
      ADD A, 7
      CONT2: JP 0033H

```

```

HEX4: LD A, H
      CALL HEX2
      LD A, L
      CALL HEX2
      LD A, "H"
      JP 0033H

```

→ nnnnH

```

ORG 7000H
LOAD 7000H
CALL 0A7FH
LD A, H
CALL HEX2
LD A, L
CALL HEX2
LD A, "H"
CALL 0033H
RET

```

```

HEX2: PUSH AF
      SRL A
      SRL A
      SRL A
      CALL KIIR
      POP AF
      PUSH AF
      AND 15
      CALL KIIR
      POP AF
      RET

```

```

KIIR: ADD A, 48
      CP 58
      JR C, CONT
      ADD A, 7
      CONT: JP 0033H

```

→ A = USR(x) - ne kinyj X-et hexadecimalisan,
az nnnnH formában

```

LD B, 0
PUSH HL
POP DE
CALL D, (HL)
ORA
JR Z, CONT
INC B
INC HL
JR C, 1

```

~~CONT: EX DE, HL~~

~~LD DE, 0~~

~~CONT: PUSH DE~~

~~POP IX~~

~~LD DE, 0~~

~~CALL D, (IX+0)~~

~~SUB 48~~

~~CP 0AH~~

~~JR NC, CONT2~~

~~SUB 07H~~

~~CONT: PUSH BC~~

~~DEC B~~

~~JR Z, CONT3~~

~~SLA B~~

~~SLA B~~

~~CS: CALL TOL~~

~~DJNZ C3~~

~~CONT3: ADD HL, DE~~

~~PUSH HL~~

~~POP DE~~

~~POP B~~

~~DJNZ C2~~

~~RET~~

```

TOL: SLA H
      SLA L
      CALL C, ATVITEL
      RET
ATVITEL: SET 0, H
      RET

```

→ HL a művep kedetere mutat,
a hexa szám négy 00H byte,
a bináris érték DE-ba kerül

KORRAZOLÖ

GET(X):PUT(Y):FIELD(R)

HT

ORG 000H
 LOAD 000H
 LO HL, GET
 LD (4180H), HL
 LO HL, PUT
 LD (4183H), HL
 LO HL, FIELD
 LD (417DH), HL
 CALL 0AC9H
 JP 1A19H
 GET: CALL 2B1BH
 PUSH AF
 RST 10H
 POP AF
 LD (X), A
 RET

PUT: CALL 2B1BH
 PUSH AF
 RST 10H
 POP AF
 LD (Y), A
 RET

X: DB 64

Y: DB 24

XX: DB 0

YY: DB 0

RSP: DB 0, 0, 0, 0

SZOG: DB 0, 0, 0, 0

STEP: DB 0, 0, 0, 124

FIELD: CALL 2B1BH

PUSH AF

RST 10H

POP AF

PUSH HL

LD L, A

LD H, 0

LD (4121H), HL

LD A, 2

LD (40AFH), A

CALL 0AB1H; CSASP

LD HL, 4121H

LD DE, RSP

LD BC, 3

LD (HL), 0

LDIR; NULLAZAS

LD B, 50

CIRKUS: PUSH BC

CALL RUTIN1

CALL 1541H; GOS(SA)

CALL RUTIN2

LD (XX), A

CALL RUTIN1

CALL 1547H; SIN(SA)

CALL RUTIN2

LD (YY), A

; 6SIKNEGYEDEK

CALL RUTIN3

ADD A, (HL)

CALL RUTIN4

ADD A, (HL)

CALL RUTIN5

SUB (HL)

CALL RUTIN4

ADD A, (HL) RUTIN5: LD E, A
 CALL RUTIN5 PUSH DE
 SUB (HL) POP HL
 CALL RUTIN4 CALL 0AUSZ
 SUB (HL) RUTIN5: LD A, (X)
 LD HL, XX
 RET

ADD A, (HL) RUTIN4: LD D, A
 CALL RUTIN4 LD A, (Y)
 SUB (HL) LD HL, YY
 RET
 CALL RUTIN5 BAUSZ: LD A, H
 ; SZOG NOVELESE CP 80H
 CALL RUTIN1 RET NC
 LD HL, 4123H LD A, L
 SET 7, (HL) CP 30H
 LD HL, STEP RET NC
 LD E, (HL) EX DE, HL
 INC HL LD HL, 0000H
 INC HL LD B, H
 LD D, (HL) LD A, E
 INC HL SUB 03H
 INC B
 LD C, (HL) JNC, DIV
 INC HL ADD A, 03H
 LD B, (HL) ADD A, A
 SET 7, C DEC B
 CALL 0716H; RA+SA OR A
 LD HL, 4123H RRC D
 RES 7, D
 LD HL, 4121H JNC, ALL
 LD DE, SZOG SET 0, L
 LD BC, 4
 LD IR LD A, C6H
 POP BC RLCL
 DEC B RLCL
 OR L RLCL
 LD (C1M+1), A
 LD E, D
 LD D, H
 LD HL, 3C00H
 ADD HL, DE
 XOR A
 OR B
 JNZ, GRAPH
 LD DE, 40H
 MUL: ADD HL, DE
 JNZ MUL
 GRAPH: BIT 7, (HL)
 JNZ, CIM
 LD (HL), 80H
 CIM: SET 0, (HL)
 RET

RUTIN1: LD HL, SZOG
 LD (40AFH), A
 LD BC, 4
 LDIR
 LD A, 4
 LD (40AFH), A
 RET

RUTIN2: LD HL, RSP
 LD E, (HL)
 INC HL
 LD D, (HL)

INC HL
 LD C, (HL)
 INC HL
 LD B, (HL)
 SET 7, C
 LD HL, 4123H
 SET 7, (HL)
 LD A, 4
 LD (40AFH), A
 CALL 0847H; RA*SA
 LD A, 4
 LD (40AFH), A
 LD HL, 4123H
 RES 7, (HL)
 CALL 0B37H; INT(SA)
 LD A, (40AFH)
 CP 2
 JNZ, CONT
 CALL 0A7FH
 CONT: LD A, (4121H)
 RET

8131, 6

ORG 02CE : Gépi kódú program betöltése, HL a név mutat,
név 02CH byte

~~02CE~~ CALL 0235H

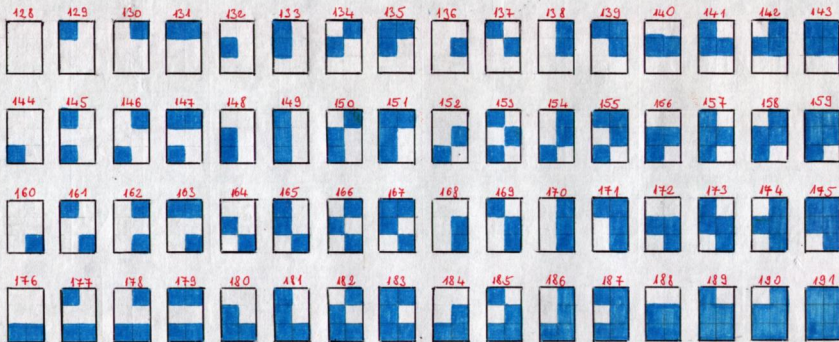
SZINKRON: CALL 0235H; Sinkronizálást keres meg
CALL 0235H; karthórá A-ba egy byte
CP 55H
JR NZ, SZINKRON; NEM a program
LD B, 6
NEV: LD A, (HL)
ORA
JR Z, C1
CALL 0235H
CP (HL)
JR NZ, SZINKRON; NEM az a név, onire a HL mutat
INC HL
DJNZ NEV

C1: CALL 022CH; * villogás
KOD: CALL 0235H

CP 78H
JR Z, INDUL; indítónál cím zöveltsél
CP 3CH
JR NZ, FS; megpróbál az sorból kódot (78H v. 3CH)
CALL 0235H
LD B, A; Bytendém B-ben
CALL HLBE; HL-be betöltés cím
ADD A, L; A-ban = H+L, ez már lent van az ellenőrző ömlesztben!
LD C, A; C-ben rögzítjük az ömlesztet

OLVAS: CALL 0235H
LD (HL), A; a memóriába töltjük a byteot
INC HL; a zöveltsét már éppen megáll- címre
ADD A, C
LD C, A; kóddatjuk C-ben
DJNZ OLVAS
CALL 0235H
CP C
JR Z, C1
CALL CHECKSUMERROR
JR KOD

INDUL: CALL HLBE; HL-be: indítónál cím
LD (40DFH), HL
CALL 01F8H; kállítja a magnó motorját
JP CONTINUE
HLBE: CALL 0235H
LD L, A
CALL 0235H
LD H, A
RET



DEC. HEX.	3ELENTE5	DEC. HEX.	3ELENTE5	DEC. HEX.	3ELENTE5	DEC. HEX.	3ELENTE5	DEC. HEX.	3ELENTE5
0 00	NOP.	54 36	LD (HL), N	108 6C	LD L, H	162 AC	AND D	216 D8	RET C
1 01	LD BC, NN	55 37	SCF	109 6D	LD L, L	163 A3	AND E	217 D9	EXX
2 02	LD (BC), A	56 38	JR C, DIS	110 6E	LD L, (HL)	164 A4	AND H	218 DA	JPC, NN
3 03	INC BC	57 39	ADD HL, SP	111 6F	LD L, A	165 A5	AND L	219 DB	IN A, N
4 04	INC B	58 3A	LD A, (NN)	112 70	LD (HL), B	166 A6	AND (HL)	220 DC	CALL C, NN
5 05	DEC B	59 3B	DEC SP	113 71	LD (HL), C	167 A7	AND A	221 DD	PREFIXES 1ST RUCTIONS 2ND
6 06	LD B, N	60 3C	INC A	114 72	LD (HL), D	168 A8	XOR B	222 DE	SBC A, N
7 07	RLCA	61 3D	DEC A	115 73	LD (HL), E	169 A9	XOR C	223 DF	RST RH
8 08	EX AF, AF	62 3E	LD A, N	116 74	LD (HL), H	170 AA	XOR D	224 E0	RET PO
9 09	ADD HL, BC	63 3F	CCF	117 75	LD (HL), L	171 AB	XOR E	225 E1	POP HL
10 0A	LD A, (BC)	64 40	LD B, B	118 76	HALT	172 AC	XOR H	226 E2	JP PO, NN
11 0B	DEC BC	65 41	LD B, C	119 77	LD (HL), A	173 AD	XOR L	227 E3	EX (SP), HL
12 0C	INC C	66 42	LD B, D	120 78	LD A, B	174 AE	XOR (HL)	228 E4	CALL PO, NN
13 0D	DEC C	67 43	LD B, E	121 79	LD A, C	175 AF	XOR A	229 E5	PUSH HL
14 0E	LD C, N	68 44	LD B, H	122 7A	LD A, D	176 B0	OR B	230 E6	AND N
15 0F	RRCA	69 45	LD B, L	123 7B	LD A, E	177 B1	OR C	231 E7	RST 80H
16 10	DENZ DIS	70 46	LD B, (HL)	124 7C	LD A, H	178 B2	OR D	232 E8	RET PE
17 11	LD DE, NN	71 47	LD B, A	125 7D	LD A, L	179 B3	OR E	233 E9	JP (HL)
18 12	LD (DE), A	72 48	LD C, B	126 7E	LD A, (HL)	180 B4	OR H	234 EA	JP PE, NN
19 13	INC DE	73 49	LD C, C	127 7F	LD A, A	181 B5	OR L	235 EB	EX DE, HL
20 14	INC D	74 4A	LD C, D	128 80	ADD A, B	182 B6	OR (HL)	236 EC	CALL PE, NN
21 15	DEC D	75 4B	LD C, E	129 81	ADD A, C	183 B7	OR A	237 ED	-
22 16	LD D, N	76 4C	LD C, H	130 82	ADD A, D	184 B8	CP B	238 EE	XORN
23 17	RLA	77 4D	LD C, L	131 83	ADD A, E	185 B9	CP C	239 EF	RST 40
24 18	JR DIS	78 4E	LD C, (HL)	132 84	ADD A, H	186 BA	CP D	240 FO	RET P
25 19	ADD HL, DE	79 4F	LD C, A	133 85	ADD A, L	187 BB	CP E	241 F1	POP AF
26 1A	LD A, (DE)	80 50	LD D, B	134 86	ADD A, (HL)	188 BC	CP H	242 F2	JP P, NN
27 1B	DEC DE	81 51	LD D, C	135 87	ADD A, A	189 BD	CP L	243 F3	DI
28 1C	INC E	82 52	LD D, D	136 88	ADD A, B	190 BE	CP (HL)	244 F4	CALL P, NN
29 1D	DEC E	83 53	LD D, E	137 89	ADD A, C	191 BF	CP A	245 F5	PUSH AF
30 1E	LD E, N	84 54	LD D, H	138 8A	ADD A, D	192 C0	RET NZ	246 F6	OR N
31 1F	RR A	85 55	LD D, L	139 8B	ADD A, E	193 C1	POP BC	247 F7	RST 48
32 20	JR NZ, DIS	86 56	LD D, (HL)	140 8C	ADD A, H	194 C2	JP NZ, NN	248 F8	RET M
33 21	LD HL, NN	87 57	LD D, A	141 8D	ADD A, L	195 C3	JP NN	249 F9	LD SP, HL
34 22	LD (NN), HL	88 58	LD E, B	142 8E	ADD A, (HL)	196 C4	CALL NZ, NN	250 FA	JP M, NN
35 23	INC HL	89 59	LD E, C	143 8F	ADD A, A	197 C5	PUSH BC	251 FB	EI
36 24	INC H	90 5A	LD E, D	144 90	SUB B	198 C6	ADD A, N	252 FC	CALL M, NN
37 25	DEC H	91 5B	LD E, E	145 91	SUB C	199 C7	RST 0	253 FD	
38 26	LD H, N	92 5C	LD E, H	146 92	SUB D	200 C8	RET Z	254 FE	OP N
39 27	DAA	93 5D	LD E, L	147 93	SUB E	201 C9	RET	255 FF	RST 56
40 28	JR Z, DIS	94 5E	LD E, (HL)	148 94	SUB H	202 CA	JP Z, NN		
41 29	ADD HL, HL	95 5F	LD E, A	149 95	SUB L	203 CB	-		
42 2A	LD HL, (NN)	96 60	LD H, B	150 96	SUB (HL)	204 CC	CALL Z, NN		
43 2B	DEC HL	97 61	LD H, C	151 97	SUB A	205 CD	CALL NN		
44 2C	INC L	98 62	LD H, D	152 98	SBC A, B	206 CE	ADD A, N		
45 2D	DEC L	99 63	LD H, E	153 99	SBC A, C	207 CF	RST 8		
46 2E	LD L, N	100 64	LD H, H	154 9A	SBC A, D	208 D0	RET NC		
47 2F	CPL	101 65	LD H, L	155 9B	SBC A, E	209 D1	POP DE		
48 30	JR NC, DIS	102 66	LD H, (HL)	156 9C	SBC A, H	210 D2	JP NC, NN		
49 31	LD SP, NN	103 67	LD H, A	157 9D	SBC A, L	211 D3	OUT V, A		
50 32	LD (NN), A	104 68	LD L, B	158 9E	SBC A, (HL)	212 D4	CALL NC, NN		
51 33	INC SP	105 69	LD L, C	159 9F	SBC A, A	213 D5	PUSH DE		
52 34	INC (HL)	106 6A	LD L, D	160 A0	AND B	214 D6	SUB N		
53 35	DEC (HL)	107 6B	LD L, E	161 A1	AND C	215 D7	RST 10H		