MBR<=MEMORY, CAR<=CAR+1 C3,C0

IR<=MBR[15..8],CAR<=CAR+1 C4,C0

CAR<=\*\*\* C1

MAR<=MBR[7..0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //LOAD

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,ACC=0,CAR<=CAR+1 C7,C8,C0

ACC<=ACC+BR,CAR<=CAR+1 C9,C0

MAR<=PC,CAR<=0 C10,C2 //LOAD END

MAR<=MBR[7..0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //STORE

MBR<=ACC,CAR<=CAR+1 C14,C0

MEMORY<=MBR,CAR<=CAR+1 C12,C0

MAR<=PC,CAR<=0 C10,C2 //STORE END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //ADD

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC+BR,CAR<=CAR+1 C9,C0

MAR<=PC,CAR<=0 C10,C2 //ADD END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //SUB

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC-BR,CAR<=CAR+1 C11,C0

MAR<=PC,CAR<=0 C10,C2 //SUB END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //AND

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC&BR,CAR<=CAR+1 C17,C0

MAR<=PC,CAR<=0 C10,C2 //AND END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //OR

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC|BR,CAR<=CAR+1 C18,C0

MAR<=PC,CAR<=0 C10,C2 //OR END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //NOT

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=!BR,CAR<=CAR+1 C19,C0

MAR<=PC,CAR<=0 C10,C2 //NOT END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //XOR

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC^BR,CAR<=CAR+1 C20,C0

MAR<=PC,CAR<=0 C10,C2 //XOR END

PC<=PC+1,CAR<=CAR+1 C6,C0 //SHL

ACC<=SHL(ACC),CAR<=CAR+1 C21,C0

MAR<=PC,CAR<=0 C10,C2 //SHL END

PC<=PC+1,CAR<=CAR+1 C6,C0 //SHR

ACC<=SHR(ACC),CAR<=CAR+1 C22,C0

MAR<=PC,CAR<=0 C10,C2 //SHR END

PC<=PC+1,CAR<=CAR+1 C6,C0 //SAL

ACC<=SAL(ACC),CAR<=CAR+1 C23,C0

MAR<=PC,CAR<=0 C10,C2 //SAL END

PC<=PC+1,CAR<=CAR+1 C6,C0 //SAR

ACC<=SAR(ACC),CAR<=CAR+1 C24,C0

MAR<=PC,CAR<=0 C10,C2 //SAR END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //MUL

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC\*BR,CAR<=CAR+1 C25,C0

MAR<=PC,CAR<=0 C10,C2 //MUL END

MAR<=MBR[7:0],PC<=PC+1,CAR<=CAR+1 C5,C6,C0 //DIV

MBR<=MEMORY,CAR<=CAR+1 C3,C0

BR<=MBR,CAR<=CAR+1 C7,C0

ACC<=ACC/BR,CAR<=CAR+1 C26,C0

MAR<=PC,CAR<=0 C10,C2 //DIV END

PC<= MBR[7..0],CAR<=CAR+1 C15,C0 //JMP

MAR<=PC,CAR<=0 C10,C2 //JMP END

CtrlUnitRead(FLAGS),CAR<=CAR+1 C27,C0 // JMP GEZ X

PC<=PC+1,CAR<=CAR+1 C6,C0

MAR<=PC,CAR<=0 C10,C2

PC<=MBR[7:0],CAR<=CAR+1 C15,C0

MAR<=PC,CAR<=0 C10,C2 //JMP GEZ X END

00000000//HALT