.include<m328pdef.inc>

.ORG 0

LDI R25, 0x10; //load register with value 00010000

LDI R24, 0x10; //load register with value 00010000

LDI R23, 0x01; //load register with value 00000001

LDI R22, 0x01; //load register with value 00000001

LDI R16,0; //load register with value 0

LDI R17,0; //load register with value 0

LDI R18,0; //load register with value 0

LDI R19,0; //load register with value 0

LDI R20,0; //load register with value 0

LDI R21,0; //load register with value 0

INC R22; //load register with value 0

TARGET1:

ADD R17,R24; //add value 00010000 to R17

ADD R18,R25; //add value 00010000 to R18

ADD R19,R16;

ADD R20,R22;

DEC R22; //Decrement R22 by 1

BRNE TARGET1; //goes to TARGET1 if branch not equal

COM R23;

INC R23; //increment R23 by 1

TARGET2:

ADD R17,R24;

ADD R18,R25;

ADD R19,R16;

ADD R20,R21;

DEC R23; //Decrement R23 by 1

BRNE TARGET2 //goes to TARGET2 if branch not equal