Homework 03

1.

	op	rs1	rd	imm	rs2	funct7	funct3
addi x30, x10, 8	19	10	30	8	/	/	000
addi x31, x10, 0	19	10	31	0	/	/	000
sd x31, 0(x30)	35	30	31	/	/	/	011
ld x30, 0(x30)	3	30	30	0	/	/	011
add x5, x30, x31	51	30	5	/	31	0000000	000

2.

1) 9,223,372,036,854,775,680 ~ 9,223,372,036,854,775,807;

2) - 9,223,372,036,854,775,808 ~ - 9,223,372,036,854,775,680;

3) - 9,223,372,036,854,775,808 ~ - 9,223,372,036,854,775,681;

3.

1) 0x200ffffe ~ 0x1ff00000;

2) 0x20000ffe ~ 0x1ffff000;

4.

1)

```
int i = 0;
int x29 = 100;
int MemArray;
int *x10 = &MemArray;
int x5;
for(i; i < x29; i++){
    x5 += *x10;
    x10++;
}
```

2)

```
        addi x6,  x0,  0
        addi x29, x0,  100
        addi x8,  x10, 400
LOOP:   lw   x7,  0(x10)
        add  x5,  x5,  x7
        addi x10, x10, 4
        blt  x10, x8,  LOOP
```

5.

1) 88;

2) 11;