4. Data movement question: The first laboratory explored moving information to and from memory with the load and store instructions. Below is a small code fragment, followed by a memory and register contents description. Identify the locations in memory and the registers that are changed by the code fragment, and give the updated values.

```
Address  BitPattern        Insruction
ffff0240 60000000          nop
ffff0244 3D00FFFF          lis r8,0xffff4400@h
ffff0248 61084400          ori r8,r8,0xffff4400@l
ffff024c 81A80014          lwz r13,0x14(r8)
ffff0250 A1E8000A          lhz r15,0x0A(r8)
ffff0254 89680017          lbz r11,0x17(r8)
ffff0258 B0A80026          sth r5,0x26(r8)
ffff025c 99080033          stb r8,0x33(r8)
ffff0260 91480038          stw r10,0x38(r8)
ffff0264 60000000          nop
```

Before		After	
r0 = 0x00000000	r1 = 0x11111111	r0 =	r1 =
r2 = 0x22222222	r3 = 0x33333333	r2 =	r3 =
r4 = 0x44444444	r5 = 0x55555555	r4 =	r5 =
r6 = 0x66666666	r7 = 0x77777777	r6 =	r7 =
r8 = 0x88888888	r9 = 0x99999999	r8 =	r9 =
r10 = 0xAAAAAAAA	r11 = 0xBBBBBBBB	r10 =	r11 =
r12 = 0xCCCCCCCC	r13 = 0xDDDDDDDD	r12 =	r13 =
r14 = 0xEEEEEEEE	r15 = 0xFFFFFFFF	r14 =	r15 =
LR = 0x00000000	CTR = 0x00000000	LR =	CTR =

Address																
30004000	01	23	45	67	89	AB	CD	EF	00	11	22	33	44	55	66	77
30004010	88	99	AA	BB	CC	DD	EE	FF	12	13	14	15	16	17	18	19
30004020	1A	1B	1C	1D	1E	1F	10	20	30	40	50	60	70	80	90	A0
30004030	B0	C0	D0	E0	F0	11	20	21	22	23	24	25	26	27	28	29