

Computer Architecture HW1 Report

電機二 梁程捷(B11901136)

Question 1

```
This is HW1-1:  $T(n) = 3T(n/4) + 10n + 3$ ,  $T(1)=T(2)=T(3) = 3$   
Enter a number: 35  
The result is: 629
```

Question 2

| Registers | Memory | Cache | | |
|------------|--------|-------|------|------|
| Address | +3 | +2 | +1 | +0 |
| 0x00010218 | '\0' | '\0' | '\0' | '\0' |
| 0x00010214 | '\0' | '\0' | '\0' | '\0' |
| 0x00010210 | '\0' | '\0' | '\0' | 'h' |
| 0x0001020c | 'c' | 'u' | 'm' | '3' |
| 0x00010208 | 'o' | 's' | '2' | 'a' |
| 0x00010204 | 'c' | '1' | 'e' | 'v' |
| 0x00010200 | 'o' | '1' | '0' | 'i' |
| 0x000101fc | '\0' | '\0' | '\0' | '\0' |

```
This is HW1-2:  
Enter offset: 5  
Plaintext:  d gjqz xv nj hpxc  
Ciphertext: i0love1ca2so3much
```