

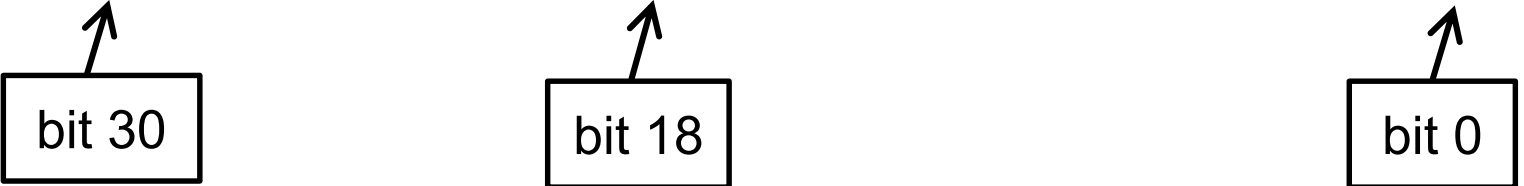
# Homework #3 (1)

- Write an ARM assembly program to analyze the content of register r0:
  - Register r1 存放著 r0[7:0] 的值
  - Register r2 存放著 r0[15:8] 的值
  - Register r3 存放著 r0[30:18] 的值

# Homework #3 (2)

- Example:

– r0 = **1101001111001**0**10000111**010000010



– r1 = 01000010 //bit0~7

– r2 = 10000111 //bit8-15

– r3 = 1101001111001 //bit18-30

# Template

```
/* ===== */  
/*      TEXT section      */  
/* ===== */
```

```
.section .text  
.global main  
.type main,%function
```

main:

```
mov    r0, #100
```

```
/* r0 = 100 */
```

Your codes

```
nop  
.end
```

- 一開始指定給r0的數值請自己設定
- 助教批改作業時，可能會測試不同的數值

# Homework #3 (3)

- How to compile:

– `arm-elf-gcc -g -O0 hw3.s -o hw3.exe`

- How to execute

– `arm-elf-insight`

# Homework #3 (4)

- Program should be assembled and linked by gcc (ARM-ELF format)
- Program can be executed under **GDB ARM simulator**
- 程式中應有適當的說明（註解）
- You should turn in to **ECOURSE**
  - “**README.txt**” file: 文字檔，描述你程式的內容、如何編譯程式、程式的執行環境、如何執行你的程式
  - “**hw3.s**”: Your ARM assembly program
  - “**hw3.exe**”: 編譯好的執行檔
- **Deadline: October 28 (Wednesday), 2015, 24:00**