

# ARMAssembly:RegistersOnly:B

## Prg2.s

```
.global _start
```

```
_start:
```

```
mov R0, #0    @ R0 = 0
```

```
mov R1, #1    @ R1 = 1
```

```
loopTop:
```

```
cmp R1, #6    @ while (R1 < 6)
```

```
bge allDone
```

```
add R0, R0, R1 @ R0 = R0 + R1
```

```
add R1, R1, #1 @ R1 = R1 + 1
```

```
b loopTop    @ back to while  
header
```

```
allDone:
```

```
mov R7, #1
```

```
swi 0
```

```
if (R0 > R1)
```

```
    R0 = R1
```

```
b #160
```

```
cmp R0, R1
```

```
ble after
```

```
mov R0, R1
```

```
after:
```

```
.....
```

```
mov R15, #160 or
```

```
mov PC, #160
```

|    |    |     |  |
|----|----|-----|--|
| R0 | 15 | R8  |  |
| R1 | 6  | R9  |  |
| R2 |    | R10 |  |
| R3 |    | R11 |  |
| R4 |    | R12 |  |
| R5 |    | R13 |  |
| R6 |    | R14 |  |
| R7 |    | PC  |  |