

Bonus point assignment – week 4

Like the factorial example, you can also implement the calculation of a power of 2 in assembly. For example you want to calculate $2^4 = 16$. Use iteration to calculate the result. Store the result in r0.

Main:

```
mov r1, #2
```

```
mov r2, #4
```

Loop:

End:

Complete the code. See the PowerPoint slides of week 4.

Screenshot of the completed code here.

```
1 Main:
2     mov r1, #2
3     mov r2, #4
4     mov r0, #1
5 Loop:
6     cmp r2, #0
7     beq End
8     mul r0, r0, r1
9     sub r2, r2, #1
10    b Loop
11 End:
12    // Result is now stored in r0, which is 16 (2^4)
```

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