Week 4 – Software

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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 r0, #1
MOV r1, #2
MOV r2, #4
```

Loop:

```
CMP r2, #0

BEQ End

MUL r0, r0, r1

SUB r2, r2, #1

B Loop
```

End:

https://wunkolo.github.io/OakSim/

```
Open Run 250 Step Reset

1 Main:
2 MOV r0, #1
3 MOV r1, #2
4 MOV r2, #4
5
6 Loop:
7 CMP r2, #0
8 BEQ End
9 MUL r0, r0, r1
10 SUB r2, r2, #1
11 B Loop
12
13 end:
```

IT FUNDAMENTALS 1