I.6 Fibonacci Sequence 2

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Of the first 50 values in the Fibonacci sequence only 0, 8, 144, 2584, 46368, 832040, 14930352, 267914296, 4807526976 are divisible by 4

The percentage of even multiples in the first 10,000 terms is about 33.3%. While looking into this more during class I found that this is the case because every third value in the sequence is even.

One thing that I notices is that when a value in the sequence is a multiple of 3 then all of the indices where is appears are multiples of 4. For example when m=3 the indexes are multiples of 4, when m=6 the indexes are multiples of 12, and when m=15 the indexes are multiples of 20. I haven't been able to look at this long enough to figure out the pattern but I think that if you were able to connect the m value to the indexes where the multiple of m occurs you could figure out the percentage of Fibonacci numbers that are multiples of m.