# Set 1 - Homework

**(1)** If we wrote the Fibonacci sequence in base 7, what would the sequence of last digits look like?

**(2)** Where do the primes distinct from 2 and 5 appear in a clock with 10 or 11 hours? Can you explain why?

**(3)** Which of these elements $2/3, 3/4, \sqrt{-1}$ can you find in $\mathbb{Z}/6$? $\mathbb{Z}/10$? $\mathbb{Z}/11$?, $\mathbb{Z}/13$?