To tell if a given number of 15 to 20 digits is prime or not, all time would not suffice for the test, whatever use is made of what is already known. - M. Mersenne

1. Read F23, F24, F32, and (if class notes are not sufficient) Kumanduri 158-162.
2. Problems F23.5, F23.6,
4. Find a solution to $x^2 = 6 \mod 53$ (as in 24.7 b).
5. F32.2, F32.3 a,b,c, F32.4 (for b just find 3).
6. F32.7 a (hint: $2^{69} \equiv 967 \mod 1105$).
7. Apply the Soloway-Strassen primality test to prove 117 is composite.
8. Use Pollard’s $p - 1$ method to find a factor $p$ of 11009 so that the only primes dividing $p - 1$ are 2 and 3.