Fall 2026, Math 296: Week 2 Preliminary Problems
Due: Thursday, September 3rd, 2026
Mathematical Exploration: Digging Deeper

Preliminary problems. These problems should be completed before discussion on Thursday.

(P1) Find integers q and r so that

$$105 = 11q + r$$

with $0 \leq r < 11$, as in the division algorithm.

(P2) Write the full mathematical definition of "prime". You may use your notes from last week.

(P3) Factor 60 and 126 each as a product of primes, *without* using a calculator.