

- V-1** Implement a function that uses LLL to take a prime $p \equiv 1 \pmod{4}$ as input and return integers u, v with $u^2 + v^2 = p$.
- V-2** Use LLL to find minimal polynomials for $\sqrt[3]{2} + \sqrt{3}$, for $\cos(\frac{6\pi}{180})$, for the complex number $0.37327441771435078 - 0.75870016346431320i$ and the real algebraic number $-0.257851036200393639481179652010243230166$.
- V-3** Implement the LLL method to find good ABC-triples, and try to find good examples.