

Problem 1: Primes in a Sequence

Show that the sequence $\sqrt{24n + 1}, n = 1, 2, \dots$ contains all primes greater than 3.

As always, show your work, fully explain and justify your answer. A solution mainly obtained by computers or calculators will not be accepted.

Posting Date 1/13/2019. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 1/20/2019.