1 Title, Authors, and Abstract

1. Include Ian as an author. DONE
2. $\{0, \ldots, x\}$ is used here, but $\{1, \ldots, x\}$ is used for the same purpose later in the paper.

   PROB DONE- I replace the 0 with a 1 HERE. I the searched for other times I had $\{0, \ldots, x\}$. There weren't any. Did I miss any?
3. "other that N" SHOULD BE "other than N" DONE
4. We do not find the fraction of primes $\leq x$ in A_d, we estimate the number of primes $\leq x$ in A_d. Although the number can easily be used to calculate the fraction. Could be: "we form a conjecture to estimate the number of primes in A_d that are $\leq x$."

   QUESTION: I DON"T SEE HOW THIS DIFFERS FROM WHAT I ALREADY HAVE.
5. "We then then" SHOULD BE "We then." DONE
6. "Second we then" SHOULD REMOVE "then." DONE

2 Introduction

"In section 3 se" SHOULD BE "In section 3 we." DONE

3 Congruence Monoid Prime Estimation

1. "9 is primes" SHOULD BE "9 is prime" DONE
2. π_d SHOULD BE $\pi_d(x)$

   PROB DONE- I assume this is for the first line of the section. Is there any other place I made this mistake?
3. π SHOULD BE $\pi(x)$

   PROB DONE- I assume this is for the first line of the section. Is there any other place I made this mistake?
4. "Hence This suggests" SHOULD REMOVE the capital "T" DONE

4 Integral Domains

1. Def 3.1: $(D, +x)$ SHOULD BE $(D, +, x)$. DONE
2. Def 3.1.2: communative SHOULD BE commutative. DONE
3. Def 3.2.1: "Dis a" SHOULD BE "D is a" DONE
4. Def 3.2.3: "if($r = ab$," : REMOVE unnecessary parenthesis. DONE

5 Gaussian

1. "This will not be out" SHOULD BE "not be our."
2. "Prime Number Theory" SHOULD BE "Theorem" (unless intentional).
3. Remove double space before "Recall."
4. About norm $\leq r^2$ or r:

   Clarification: We used r before, now we are using r^2 in

   Do we want to use $\{a + bi : a^2 + b^2 \leq r\}$.

   OR

   $\{a + bi : a^2 + b^2 \leq r^2\}$ " (I think you forgot to add the sqrt to the $a^2 + b^2$ in your email, so you swapped the order of us doing r^2 and r accidentally.)

   In any case, I think we should use $\{a+bi : a^2+b^2 \leq r^2\}$ (new version's Def 4.2.2 (equivalent)) because the radius is the sqrt of the norm. This aligns more with the definition of a circle in the complex plane (or any circle): norm $\leq r^2$ is more appropriate for 2D since it matches the form $X^2 + Y^2 = r^2$ SHOULD BE $r = sqrt(X^2 + Y^2)$.

   I DID NOT MAKE THIS CORRECTION- YOU WILL MAKE IT SINCE YOU KNOW MORE ABOUT THIS MATERIAL AND WHAT YOU DID THAN I DO.

5. Conversly, norm $\leq r$ would make this circle ridiculously large (counting to norm $\leq 10^7$ would be impossible for us). Moreover, the scales between the estimations will be too far off.

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6. Another clarification: our code has always internally used norm $\leq r^2$, not r, but our x-axis and estimation before used norm $\leq r$ to make it more "similar" to the PNT. However, I think simply matching the estimation's format of the PNT does not make it a closer analogy; the logic behind using norm $\leq r^2$ is more accurate, even if the estimation uses different powers.

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7. If we use norm $\leq r^2$ (as the current version does), the graph cannot be from the previous version (I think this revised version uses the old one by mistake). It should use the new graph I emailed before, also file Gaussiangraph.png)

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8. The MAPE table should add: $10^7 : 7.220\%$

   This is because the attached graph uses norm $\leq 10^7$, here $\max r = 3162.277\ldots$ (exact $\sqrt{(10^7)}$).

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9. To clarify again: norm $\leq r^2$ is the revised version, not the old one, and I think we should stick with this.

   I DID NOT MAKE THIS CORRECTION- YOU WILL MAKE IT SINCE YOU KNOW MORE ABOUT THIS MATERIAL AND WHAT YOU DID THAN I DO.

6 Other Integral Domains

1. 2c): ... $O(sqrt(-d))$ ha" SHOULD BE "has." DONE
2. 5.3: to ask is is SHOULD BE to ask is DONE

7 References

1. "Simple analytica" SHOULD BE "Simple analytic." DONE
2. "Factoriation" SHOULD BE "Factorization." DONE