Name: _____

Read and take notes on Section 19.4, Non-Sieving Quadratic Sieve. Section 19.4 describes various issues with and improvement to Dixon's Algorithm and includes several examples.

Reading Questions

1. What two parts of Dixon's Algorithm are optimized/improved in this section? (See the first paragraph.)

2. What advantages are there to choosing a's that are close to the square root of n? (There are two! One is mentioned in the first remark, the other mentioned immediately before the last example.)

3. How should the factor base be modified if the b's are computed in such a way that they may be negative?

4. What is the advantage to having a larger factor base? What is the disadvantage?

5. What struck you in this reading? What is still unclear? What remaining questions do you have?