Proposed list of topics to be removed from Math 0098

1. Classifying real numbers
   a. Rationale: Rational and irrational are irrelevant in a curriculum with no rationalizing of denominators. The term integer is used in many places throughout the course, so students will still have exposure to the concept.
   b. Topics removed (2):
      Identifying numbers as integers or non-integers
      Identifying numbers as rational or irrational

2. Function notation
   a. Rationale: Function notation is taught in both 1001 and 1111.
   b. Topics removed (3):
      Evaluating functions: Linear and quadratic or cubic
      Variable expressions as inputs of functions
      Finding inputs and outputs of a function from its graph

3. Nonlinear inequalities
   a. Rationale: Inequalities are taught in 1111, and not needed in 1001.
   b. Topics removed (3):
      Solving a quadratic inequality written in factored form
      Solving a quadratic inequality
      Solving a polynomial inequality

4. Parabolas
   a. Rationale: Parabolas are taught in 1111, and not needed in 1001.
   b. Topics removed (2):
      Graphing a parabola of the form \( y = ax^2 \)
      Graphing a parabola of the form \( y = (x-a)^2 + c \)

5. Absolute value equations and inequalities
   a. Rationale: Absolute value equations and inequalities are not part of the 1001 or 1111 curriculum. Also, compound inequalities were not part of the course before the redesign.
   b. Topics removed (14):
      Translating a sentence into a compound inequality
      Graphing a compound inequality on the number line
      Solving a compound linear inequality: Problem type 1
      Solving a compound linear inequality: Problem type 2
      Introduction to solving an absolute value equation
      Solving an absolute value equation: Problem type 1
      Solving an absolute value equation: Problem type 2
Solving an absolute value equation: Problem type 3
Solving an absolute value equation: Problem type 4
Solving an absolute value inequality: Problem type 1
Solving an absolute value inequality: Problem type 2
Solving an absolute value inequality: Problem type 3
Solving an absolute value inequality: Problem type 4
Solving an absolute value inequality: Problem type 5

6. Rational expressions
   a. Rationale: Rational equations are still part of the course. We want students to solve those equations by using the LCD to get rid of all denominators, as an extension of their earlier work on other types of equations. Having rational expressions, which involve getting common denominators and adding and subtracting, is confusing to students. Only the simplest rational functions are part of 1111 (1/x and 1/x^2 and their transformations), and are not a part of 1001 at all.
   b. Topics removed (4):
      Adding rational expressions with common denominators and binomial numerators
      Adding rational expressions with denominators ax and bx
      Adding rational expressions with linear denominators without common factors
      Adding rational expressions involving different quadratic denominators

7. Radical equations
   a. Rationale: Radical equations are taught in 1111, and not part of 1001.
   b. Topics removed (2):
      Solving a radical equation that simplifies to a linear equation: One radical
      Solving a radical equation that simplifies to a quadratic equation: One radical

8. Radical arithmetic
   a. Rationale: While some basics are necessary and will remain (simplifying roots, squaring square roots), more complicated radical arithmetic was only included in the course because it is on the exit COMPASS, which is no longer an issue.
   b. Topics removed (4):
      Square root multiplication: Advanced
      Simplifying a product involving square roots using the distributive property: Advanced
      Special products of radical expressions: Conjugates and squaring
      Square root addition or subtraction