

Entering Grade _____

First and Last Name _____

Concord Academy

MATHEMATICS QUESTIONNAIRE

Due 3:00 p.m. May 12, 2021

Please answer all the questions on this form with the help of your current teacher, if possible.

Present school and location _____

Title of your current mathematics course _____

I. GEOMETRY By the end of this school year will you have completed either this year or previously:

A full-year course in plane geometry, with substantial proofs? YES NO

One or more integrated courses in algebra and plane geometry? YES NO

If both answers are NO, go to the ALGEBRA section.

Title/author of textbook used for geometry: _____

Check all topics which you have already learned or will have learned by the end of the school year:

- Prove triangles congruent
- Prove lines parallel or perpendicular
- Prove properties of familiar polygons (parallelograms, trapezoids, etc.)
- Prove polygons similar
- Solve problems using the Pythagorean Theorem
- Compute areas of plane geometric figures (trapezoids, regular polygons, etc.)
- Compute volumes of solid figures (spheres, cones, pyramids, etc.)
- Compute angle measures associated with tangents, chords, and secants in circles
- Compute angles and sides using right triangle trigonometry

II. ALGEBRA By the end of this school year will you have completed either this year or previously:

One or more full-year courses in algebra? YES NO

One or more integrated courses in algebra and plane geometry? YES NO

Fill this out even if both answers above are “no”:

Check all topics which you have already learned or will have learned by the end of the school year:

Algebra I

- Simplify arithmetic expressions (positive and negative numbers, order of operations)
- Simplify arithmetic expressions (absolute value)
- Simplify algebraic expressions (distributive law, collect like terms)
- Solve linear equations (one variable, with distributive law and collecting like terms)
- Solve word problems involving linear equations (one variable, rates)
- Graph lines (two variables) using slopes and intercepts
- Determine equation of line in slope-intercept and point-slope forms
- Determine equations of parallel and perpendicular lines
- Derive and use distance and midpoint formulas

