

## PREREQUISITES: GEOMETRY

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Mathematics builds! To be successful in Geometry, there are certain skills that you are expected to already have mastered. These prerequisites are summarized on this sheet. Although some of the topics listed here may be reviewed in Geometry, you are expected to already have some familiarity with them, so that we can quickly move beyond the basics to higher-level discussions. Algebra I is a prerequisite to Geometry.

Each instructor has the option of giving a quiz over this prerequisite material during the first couple weeks of class.

“Sample Prerequisite Problems” (with solutions) are available on the web.

DON'T PANIC if you're rusty (or just haven't ever seen!) some of this material. The Math Department teachers are all available to help you. It's very important, however, that you get this material at your fingertips right away, because we'll be drawing on these skills frequently.

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1. arithmetic skills, including: multiplication tables; base ten number system; arithmetic with whole numbers, decimals, and fractions; arithmetic with signed numbers
2. real number line concepts and terminology, including: order; average; the words “at least” and “at most”
3. absolute value:  $|x|$  as distance from  $x$  to 0;  $|x - y|$  as distance between  $x$  and  $y$
4. order of operations concepts
5. exact versus approximate answers (particularly as related to  $\pi$ ,  $\sqrt{2}$ , etc.)
6. working with whole number exponents; exponent laws
7. ratios and proportions
8. arithmetic with polynomials: combining like terms; FOIL; more advanced use of the distributive law
9. factoring: greatest common factor; factoring trinomials; difference of squares; the zero factor law
10. solving any linear equation/inequality in one variable, particularly those involving fractions, decimals, and radicals
11. graphing basics, including: coordinate plane terminology; plotting points; the midpoint and distance formulas
12. working with lines: writing equations and graphing; slope; parallel and perpendicular lines
13. basic calculator skills, including: keying in expressions correctly; graphing functions