

# Roger Bacon High School Summer Assignment

Mathematics - Assignment to be completed in the summer prior to junior year

**Instructions:** After logging in to your IXL account (<https://www.ixl.com/signin/rogerbahs>), please complete the IXL skills that correspond to the listed objectives for the class that you will be taking during the 2023-2024 school year. The easiest way to begin working on each skill is to click the skill # below which includes an embedded hyperlink that will send you directly to the questions on IXL. **BUT PLEASE REMEMBER, YOU MUST LOG INTO YOUR IXL ACCOUNT FIRST IN ORDER TO MAKE SURE THAT YOUR PROGRESS GETS RECORDED!!!**

Please note, if you are taking a CC level course, you must earn a smart score of 70 or higher to receive credit. CP students must earn a smart score of 85 or higher and Honors students must earn a perfect 100 on each skill.

If you have any trouble logging in or have any additional questions, please email Coach Neal at [bneal@rogerbacon.org](mailto:bneal@rogerbacon.org).

## Geometry

Objective	IXL Skill
I can describe a sequence of transformations.	<a href="#">SKILL 1</a>
I can write congruence statements using corresponding parts.	<a href="#">SKILL 2</a>
I can find the scale factor of dilations.	<a href="#">SKILL 3</a>
I can find the area and circumferences of circles.	<a href="#">SKILL 4</a>
I can factor polynomials.	<a href="#">SKILL 5</a>
I can solve quadratic equations using square roots.	<a href="#">SKILL 6</a>
I can solve a quadratic equation using the Quadratic Formula.	<a href="#">SKILL 7</a>
I can simplify radical expressions.	<a href="#">SKILL 8</a>
I can use the Pythagorean Theorem to find missing side lengths of a right triangle.	<a href="#">SKILL 9</a>
I can find the distance between two points.	<a href="#">SKILL 10</a>
I can solve a right triangle.	<a href="#">SKILL 11</a>
I can solve linear equations.	<a href="#">SKILL 12</a>
I can graph solutions to advanced linear inequalities.	<a href="#">SKILL 13</a>
I can calculate experimental and theoretical probability.	<a href="#">SKILL 14</a>
I can write linear functions from word problems.	<a href="#">SKILL 15</a>
I can write an equation from a graph in point-slope form.	<a href="#">SKILL 16</a>
I can solve a system of equations by graphing.	<a href="#">SKILL 17</a>
I can identify equivalent expressions involving exponents.	<a href="#">SKILL 18</a>
I can add and subtract polynomials.	<a href="#">SKILL 19</a>
I can multiply two binomials.	<a href="#">SKILL 20</a>

## Algebra II

Objective	IXL Skill
I can write linear, quadratic, and exponential functions from tables.	<a href="#">SKILL 1</a>
I can simplify radical expressions.	<a href="#">SKILL 2</a>
I can rearrange multi-variable equations.	<a href="#">SKILL 3</a>
I can graph solutions to inequalities.	<a href="#">SKILL 4</a>
I can interpret a scatter plot.	<a href="#">SKILL 5</a>
I can analyze a regression line of a data set.	<a href="#">SKILL 6</a>
I can identify functions.	<a href="#">SKILL 7</a>
I can evaluate a function.	<a href="#">SKILL 8</a>
I can identify direct and inverse variation.	<a href="#">SKILL 9</a>
I can write linear functions from word problems.	<a href="#">SKILL 10</a>
I can solve a system of equations from word problems.	<a href="#">SKILL 11</a>
I can identify exponential growth and decay.	<a href="#">SKILL 12</a>
I can multiply two binomials.	<a href="#">SKILL 13</a>
I can solve linear equations.	<a href="#">SKILL 14</a>
I can solve systems of linear equations.	<a href="#">SKILL 15</a>
I can solve a quadratic equation by factoring.	<a href="#">SKILL 16</a>
I can graph a linear equation.	<a href="#">SKILL 17</a>
I can write equations of lines.	<a href="#">SKILL 18</a>
I can find the area and perimeter in the coordinate plane.	<a href="#">SKILL 19</a>
I can find conditional probabilities using two-way frequency tables.	<a href="#">SKILL 20</a>

## Precalculus

Objective	IXL Skill
I can identify domain and range.	<a href="#">SKILL 1</a>
I understand function transformation rules.	<a href="#">SKILL 2</a>
I understand reflections of functions.	<a href="#">SKILL 3</a>
I can match quadratic functions to their graphs.	<a href="#">SKILL 4</a>
I can solve a quadratic equation by factoring.	<a href="#">SKILL 5</a>
I can write a polynomial from its roots.	<a href="#">SKILL 6</a>
I can identify the domain and range of polynomials.	<a href="#">SKILL 7</a>
I can identify the domain and range of exponential and logarithmic functions.	<a href="#">SKILL 8</a>
I can convert between exponential and logarithmic forms.	<a href="#">SKILL 9</a>
I can solve exponential equations by rewriting the base.	<a href="#">SKILL 10</a>
I can solve exponential equations by using logarithms.	<a href="#">SKILL 11</a>
I can describe linear and exponential growth and decay.	<a href="#">SKILL 12</a>
I can identify the domain and range of radical functions.	<a href="#">SKILL 13</a>
I can solve radical equations.	<a href="#">SKILL 14</a>
I can evaluate rational exponents.	<a href="#">SKILL 15</a>
I can complete operations with rational exponents.	<a href="#">SKILL 16</a>
I can simplify radical expressions with variables.	<a href="#">SKILL 17</a>
I can simplify expressions involving rational exponents.	<a href="#">SKILL 18</a>
I can find the side length of a triangle.	<a href="#">SKILL 19</a>
I can find the angle measure of a triangle.	<a href="#">SKILL 20</a>
I can determine end behavior using graphs.	<a href="#">SKILL 21</a>