

Roger Bacon High School Summer Assignment

Mathematics - Assignment to be completed in the summer prior to senior 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.

Algebra II

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

Pre-Calculus

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

AP Calculus

Objective	IXL Skill
I can match polynomials and graphs.	SKILL 1
I can identify the domain and range of polynomials.	SKILL 2
I can identify asymptotes and excluded values.	SKILL 3
I can solve rational equations.	SKILL 4
I can solve a right triangle.	SKILL 5
I understand the law of sines.	SKILL 6
I understand the law of cosines.	SKILL 7
I can find the angles and sides of a triangle.	SKILL 8
I understand sigma notation.	SKILL 9
I can identify convergent and divergent series.	SKILL 10
I can find the value of an infinite geometric series.	SKILL 11
I can find trigonometric ratios using the unit circle.	SKILL 12
I can find trigonometric ratios using reference angles.	SKILL 13
I can convert between trigonometric ratios.	SKILL 14
I can find inverses of trigonometric ratios.	SKILL 15
I can solve trigonometric ratios.	SKILL 16
I can convert between exponential and logarithmic forms.	SKILL 17
I understand the properties of logarithms.	SKILL 18
I can solve exponential equations.	SKILL 19
I can solve logarithmic equations.	SKILL 20

Probability & Statistics AND AP Statistics

Objective	IXL Skill
I can convert between fractions, decimals, and percents.	SKILL 1
I can interpret bar graphs.	SKILL 2
I can interpret stem-and-leaf plots.	SKILL 3
I can interpret histograms.	SKILL 4
I can calculate mean, median, mode, and range.	SKILL 5
I understand probability values.	SKILL 6
I can find the probability of simple events.	SKILL 7
I can calculate probabilities of events.	SKILL 8
I can find the probabilities using two-way frequency tables.	SKILL 9
I can find the conditional probabilities using a two-way table.	SKILL 10
I can understand combinations and permutations.	SKILL 11
I can find probabilities using combinations and permutations.	SKILL 12
I can identify independent and dependent events.	SKILL 13
I can find conditional probabilities.	SKILL 14
I understand independence and conditional probability.	SKILL 15
I can find probabilities using the addition rule.	SKILL 16
I can identify an outlier.	SKILL 17
I can interpret a scatter plot.	SKILL 18
I can identify outliers in scatter plots.	SKILL 19
I can identify discrete and continuous random variables.	SKILL 20
I can write a discrete probability distribution.	SKILL 21