Geometry

Summer IXL Extra Credit Opportunity:

Hello Wonderful Geometry students,

I hope you are having a great start to summer! You will have a special opportunity to get extra credit over the summer. **This summer work will allow you to replace your lowest test score of the 1st Quarter with up to a 100%.**

Typically, students are given a packet of math pages to complete over the summer, and just as typically, many will either hurriedly work through the pages to complete them (getting them DONE), or wait until the end of summer and rush to finish the pages before school starts. Neither of these scenarios is helpful, so this summer the math department is using IXL. The goal is not to "ruin" your summer vacation; instead the goal is to keep your working knowledge of mathematical skills fresh.

Here is the list of the math skills all incoming Geometry students should review over the summer. Each student should complete as many of the 90 sections below to **a score of 75** by working 15-20 minutes per day over summer vacation. This will keep your mind mathematically engaged through the summer and will enable you to start the new year "running!" Geometry requires that you have a mastery of Algebra skills in order to be truly ready and able to achieve real success for the next school year. The 15-20 minutes per day should not be burdensome and reaching a score of 75 in each section should not be too difficult. The time you spend each day will keep you primed and ready to tackle next year's adventure in mathematics!

Please login to IXL with your username and password to confirm that it still works as soon as possible. If you are having trouble with your username and/or password, let me know by July 8th.

In addition, it would be very helpful for all Geometry students to purchase the book over the summer so you can bring your book and be prepared on the first week of school. The book on Amazon (used) is more reasonable now typically than at the start of the school year when so many students are trying to buy it. Here is what you need:

Geometry Common Core, Pearson 2015; ISBN #: 978-0-13-328115-6

Have a wonderful summer! I am available to answer questions through the summer except between June 24 – July 2. Please email me sbundy@cvcs.org

Mrs. Bundy

Here are the sections of IXL under the Algebra I heading for your review. If you complete all 100 sections **from the sections list below** to 75, then you can replace your lowest test score of the first quarter with a 100%. **Whatever number of the 100 options you complete to a 75 will determine what test grade can replace your lowest test score of the 1st Quarter**.

Log on to the website: www.ixl.com/signin/cvcs. Input in your username and password and begin the extra credit opportunity by clicking on the icon "Math" at the top of the page and then selecting "Algebra I". Once you click on Algebra I, you will see all sections available to complete. **Choose only the section titles I have listed below to earn the extra credit!** *Please note that section numbers may change with a new IXL update, focus on the topic titles not the letters/numbers*. Any other sections will not earn extra credit but may be helpful to you if you want to dig deeper. I will be able to see your progress throughout the summer. This is summer work and must be completed between June 7th and the first day of school in order to receive the extra credit.

IXL Topics under Algebra I:

Ratios, rates, and proportions

C: 1 (Identify equivalent ratios)
C: 2 (Write an equivalent ratio)
C: 3 (Unit rates)
C: 5 (Solve proportions)
C: 6 (Solve proportions; word problems)
C: 7 (Scale drawings, word problems)

Measurement

E: 1 (Convert rates and measurements: customary units)
E: 7 (Minimum and maximum areas and volumes)

Geometry

F: 1 (Perimeter)
F: 2 (Area)
F: 3 (Area & perimeter: word problems)
F: 4 (Volume)
F: 5 (Surface Area)
F: 6 (Similar figures: side lengths and angle measures)
F: 9 (Area and perimeter of similar figures)
F: 10 (Area between two shapes)
F: 12 (Volume and surface area of similar solids)
F: 16 (Pythagorean Theorem)
F: 17 (Pythagorean Theorem: word problems)
F: 18 (Converse of the Pythagorean Theorem: is it a right triangle?)
F: 19 (Special right triangles)

Coordinate Plane

G: 1 (Coordinate plane review)
G: 2 (Midpoint formula: find the midpoint)
G: 3 (Midpoint formula: find the endpoint)
G: 4 (Distance between two points)

Properties

H: 1 (Properties of addition and multiplication)
H: 2 (Distributive property)
H: 3 (Simplify variable expressions using properties)
H: 4 (Properties of equality)
H: 5 (Identify equivalent equations)

Variable expressions and equations

I: 3 (Simplify variable expressions involving like terms and the distributive property)
I: 6 (Does x satisfy the equation)
I: 8 (Solve equations using order of operations)
I: 11 (Rearrange multi-variable equations)

Solve equations

J: 3 (Solve one-step linear equations)
J: 4 Solve two-step linear equations)
J: 6 (Solve equations with variables on both sides)

Problem solving

O: 1 (Word problems: mixed review)

Linear functions

S: 1 (Identify linear functions from graphs and equations)
S: 3 (Find the slope of the graph)
S: 4 (Find the slope from two points)
S: 7 (Slope-intercept form: graph an equation)
S: 8 (Slope-intercept form: write an equation from a graph)
S: 18 (Standard form: find x- and y- intercepts)
S: 20 (Equations of horizontal and vertical lines)
S: 21 (Graph a horizontal or vertical line)
S: 22 (Point-slope form: graph an equation)
S: 23 (Point-slope form: write an equation)
S: 24 (Point-slope form: write an equation from a graph)
S: 25 (Slopes of parallel and perpendicular lines)
S: 26 (Write an equation for a parallel or perpendicular line)
S: 27 (Transformations of linear functions)

Systems of linear equations

U: 8 (Solve a system of equations using substitution)
U: 10 (Solve a system of equations using elimination)

Exponents

V: 1 (Exponents with integer bases)
V: 3 (Negative exponents)
V: 4 (Multiplication with exponents)
V: 5 (Division with exponents)
V: 7 (Power rule)
V: 8 (Evaluate expressions using properties of exponents)

Polynomials

Z: 4 (Add and subtract polynomials)
Z: 5 (Add polynomials to find perimeter)
Z: 8 (Multiply two binomials)
Z: 9 (Multiply two binomials: special cases)
New: (Multiply polynomials using area models)
Z: 10 (Multiply polynomials)
Z: 11 (Multiply polynomials to find area)

Factoring

AA: 1 (GCF of monomials)
AA: 2 (Factor out a monomial)
AA: 4 (Factor quadratics with leading coefficient 1)
AA: 5 (Factor quadratics with other leading coefficients)
AA: 6 (Factor quadratics: special cases)

Quadratic equations

BB: 1 (Characteristics of quadratic functions: graphs)
BB: 4 (Transformations of quadratic functions)
BB: 8 (Solve a quadratic equation by factoring)
BB: 10 (Solve a quadratic equation by completing the square)
BB: 11 (Solve a quadratic equation using the quadratic formula)

DD: Absolute value function families

DD: 7 (Function transformation rules)
DD: 8 (Translations of functions)
DD: 9 (Reflections of functions)
DD: 10 (Dilations of functions)
DD: 11 (Transformations of functions)
DD: 12 (Describe function transformations)

Radical expressions

EE: 2 (Simplify radical expressions with variables)
EE: 3 (Simplify radical expressions involving fractions)
EE: 8 (Simplify radical expressions: mixed review)

Trigonometry

HH: 1 (Trigonometric ratios: sin, cos, and tan)
HH: 2 (Find trigonometric ratios using a calculator)
HH: 4 (Trigonometric ratios: find a side length)
HH: 6 (Solve a right triangle)

Logic

JJ: 1 (Identify hypotheses and conclusions)
JJ: 2 (Counterexamples)

Probability

KK: 1 (Theoretical probability)
KK: 2 (Experimental probability)
KK: 5 (Outcomes of compound events)
KK: 6 (Identify independent and dependent events)
KK: 7 (Probability of independent and dependent events)
KK: 8 (Counting principle)
KK: 9 (Permutations)
KK: 10 (Permutation and combination notation)