

## York Catholic Mathematics Summer Work

Students taking the courses listed below (primarily 9<sup>th</sup> & 10<sup>th</sup> graders) will be using the IXL website for their summer work. The goal is to provide students with feedback and instruction as they review previously studied concepts that are needed to successfully complete the upcoming course.

Successful completion of a lesson is a score of 80 points or higher. You do not need to score a 100 and finish the lesson but it is certainly encouraged. Lessons can be done in multiple sessions and your score will be saved each time you exit a lesson.

Teachers will have access to check your progress over the summer. You can email your math teacher with any questions you have on a particular lesson if you find yourself struggling. The program will provide you with solutions to questions you answer incorrectly. Review the solution carefully before moving on to the next question as that will help answer subsequent questions correctly. Students may complete additional lessons at any grade level and can be a benefit to help students fill in gaps on topics they did not master during the current school year.

### Directions:

1. Log into IXL.com with your student Username and Password (email Mr. Autrey [pautrey@yorkcatholic.org](mailto:pautrey@yorkcatholic.org) if you do not have your UN or PW)
2. Click on the Math tab as shown below



3. On the left margin will be a series of numbers and letters representing the Level of activities. Click on the corresponding level for your activities.



4. Each activity listed below has a letter and number. You do not need to go in order. The program will save your current score each time you exit a lesson.

## **Algebra 1 Part 2 (10 lessons)**

Level: Grade 9

- A.1 Factors
- B.4 Compare and Order Integers
- C.8 Evaluating Numerical Expressions Involving Integers
- D.1 Write Fractions in Lowest Terms
- F.1 Understanding Exponents
- H.1 Understanding Ratios
- N.1 Coordinate Plane Review
- V.1 Write Variable Linear Expressions
- W.7 Solve Two Step Equations
- Y.1 Find the Slope of a Graph

## **Algebra 2 (9 lessons)**

Level Algebra 1

- B.1 Add, subtract, multiply and divide integers
- G.1 Coordinate plane review
- I.2 Simplify variable expressions using like terms and the distributive property
- J.4 Solve two step linear equations
- S.1 Identify linear functions
- S.3 Find the slope from two points
- T.1 Does  $(x,y)$  satisfy the inequality
- V.1 Exponents with integer bases
- Z.4 Add and subtract polynomials

## **Algebra 2 CP (11 lessons)**

Level Algebra 1

- G.1 Coordinate plane review
- I.2 Simplify variable expressions using like terms and the distributive property
- J.4 Solve two step linear equations
- S.3 Find the slope from two points
- S.6 Slope intercept form: graph an equation
- U.1 Is  $(x,y)$  a solution to the system of equations?
- V.1 Exponents with integer bases
- Z.1 Polynomial Vocabulary
- Z.4 Add and subtract polynomials
- AA.2 Factor out a monomial
- AA.4 Factor quadratics with leading coefficient 1

## **Algebra 2 Honors (15 lessons)**

### Level Algebra 1

B.7 Evaluate variable expressions involving rational numbers

C.5 Solve proportions

J.11 Solve linear equations: mixed review

K.10 Solve advanced linear inequalities

Q.9 Complete a function table from a graph

S.3 Find the slope from two points

S.24 Write equations for parallel or perpendicular lines

U.8 Solve a system of equations by substitution

V.9 Identify equivalent expressions involving exponents

Z.1 Polynomial Vocabulary

Z.8 Multiply two binomials

AA.4 Factoring quadratics with leading coefficient of 1

BB.1 Characteristics of quadratic equations

BB.12 Match quadratic functions and graphs

EE.1 Simplify radical expressions

## **Geometry (9 lessons)**

### Level: Algebra 1

B.1 Add, subtract, multiply and divide integers

G.1 Coordinate plane review

I.2 Simplify variable expressions using like terms and the distributive property

J.4 Solve two step linear equations

S.1 Identify linear functions

S.3 Find the slope from two points

T.1 Does  $(x,y)$  satisfy the inequality?

V.1 Exponents with integer bases

Z.4 Add and subtract polynomials

## **Geometry CP (9 lessons)**

### Level: Geometry

A.1 Ratios and Proportions

A.3 Properties of Exponents

A.4 Simplify Radical Expressions

A.5 Write Variable Expressions

A.6 Solve Linear Equations

A.7 Solve Linear Inequalities

A.8 Solve Systems of Linear Equations

A.9 Solve Quadratic Equations by Factoring

A.10 Solve Quadratic Equations Using the Quadratic Formula

**Geometry Honors (15 lessons)**

All of Geometry CP lessons plus the following

Level Algebra 2

B.5 Solve multivariable equations

D.1 Domain and Range

H.4 Multiply complex numbers

J.11 Match quadratic functions and graphs

M.5 Simplify expressions involving rational exponents I

N.2 Evaluate rational expressions I