#### York Catholic Mathematics Summer Work Due: Friday August 27, 2021

Students taking the courses listed below 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 defined by the percent listed next to the course. 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 Mrs. Emschweiler at <u>memschweiler@yorkcatholic.org</u> for UN or PW)
- Find the math class that you are *going into* for the 2021-2022 school year. Click on each link listed for that particular class and complete it to the score required for you to achieve. You should have between 9 to 23 lessons depending on your particular class.
- 3. You do not need to go in order. The program will save your current score each time you exit a lesson.

# Algebra 1

# Algebra 1 Part 1 (10 lessons) - score 80 points or higher

- B.2 Integers on number lines A5Y
- <u>C.1 Integer addition rules</u> ERH
- <u>C.4 Add integers</u> QFU
- <u>C.5 Add three or more integers</u> PBC
- <u>C.12 Add and subtract integers</u> FNS
- <u>C.14 Add and subtract integers: word problems</u> 2DD
- <u>C.16 Multiply integers</u> DQT
- <u>C.18 Equal quotients of integers</u> 2QY
- <u>C.21 Multiply and divide integers</u> R8D
- C.23 Add, subtract, multiply, and divide integers B8A
- G.1 Add and subtract fractions NGL
- M.5 Unit prices: find the total price ENH

# Algebra 1 CP & Accelerated 8th Grade (12 lessons) - score 80 points or higher

- B.2 Integers on number lines A5Y
- <u>C.1 Integer addition rules</u> ERH
- <u>C.4 Add integers</u> QFU
- <u>C.5 Add three or more integers</u> PBC
- C.12 Add and subtract integers FNS
- C.14 Add and subtract integers: word problems 2DD
- <u>C.16 Multiply integers</u> DQT
- <u>C.18 Equal quotients of integers</u> 2QY
- <u>C.21 Multiply and divide integers</u> R8D
- C.23 Add, subtract, multiply, and divide integers B8A
- G.1 Add and subtract fractions NGL
- <u>M.5 Unit prices: find the total price</u> ENH

# Algebra 1 Part 2 (10 lessons) - score 60 points or higher

- <u>A.1 Factors</u> 7K3
- <u>B.4 Compare and Order Integers</u> T2M
- <u>C.8 Evaluating Numerical Expressions Involving Integers Y6W</u>
- D.1 Write Fractions in Lowest Terms ZGT
- <u>F.1 Understanding Exponents</u> VFV
- H.1 Understanding Ratios X45
- N.1 Coordinate Plane Review T6E
- <u>V.1 Write Variable Linear Expressions PEZ</u>
- <u>W.8 Solve two-step equations JXD</u>
- Y.1 Find the Slope of a Graph D7M

# Algebra 2

## Algebra 2 (9 lessons) - score 60 points or higher

- B.1 Add, subtract, multiply and divide integers UNC
- G.1 Coordinate plane review H6E
- I.3 Simplify variable expressions using like terms and the distributive property ZXX
- <u>J.4 Solve two-step linear equations</u> QAK
- <u>S.1 Identify linear functions VMQ</u>
- S.4 Find the slope from two points MD5
- T.1 Does (x,y) satisfy the inequality N9L
- V.1 Exponents with integer bases EJ8
- Z.4 Add and subtract polynomials 5EK

## Algebra 2 CP (11 lessons) - score 80 points or higher

- G.1 Coordinate plane review H6E
- I.3 Simplify variable expressions using like terms and the distributive property ZXX
- J.4 Solve two-step linear equations QAK
- <u>S.4 Find the slope from two points MD5</u>
- S.7 Slope intercept form: graph an equation UWB
- U.1 Is (x,y) a solution to the system of equations? LRL
- V.1 Exponents with integer bases EJ8
- Z.1 Polynomial Vocabulary MTT
- Z.4 Add and subtract polynomials 5EK
- AA.2 Factor out a monomial JZL
- AA.4 Factor quadratics with leading coefficient 1 S9P

## Algebra 2 Honors (15 lessons) - score 85 points or higher

- <u>B.7 Evaluate variable expressions involving rational numbers M9A</u>
- <u>C.5 Solve proportions</u> 27L
- J.11 Solve linear equations: mixed review DN6
- K.10 Solve advanced linear inequalities 9K8
- Q.9 Complete a function table from a graph HXF
- <u>S.4 Find the slope from two points MD5</u>
- S.24 Write equations for parallel or perpendicular lines 5SH
- U.8 Solve a system of equations by substitution 8P9
- <u>V.9 Identify equivalent expressions involving exponents I EUF</u>
- Z.1 Polynomial Vocabulary MTT
- <u>Z.8 Multiply two binomials</u> M7Q
- AA.4 Factor quadratics with leading coefficient 1 S9P
- BB.1 Characteristics of quadratic equations HW8
- BB.13 Match quadratic functions and graphs AU8
- <u>EE.1 Simplify radical expressions ZFF</u>

# Geometry

#### Geometry (9 lessons) - score 60 points or higher

- O.3 Consecutive Integer Problems HDF
- <u>E.1 Coordinate Plane Review</u> ZMF
- <u>A.3 Simplify variable Expressions PVC</u>
- <u>K.8 Solve two-step linear inequalities</u>NPZ
- <u>T.10 Identify linear and exponential functions CWH</u>
- <u>D.6 Find the slope of a linear function W67</u>
- Z.19 Does (x, y) satisfy the nonlinear function? ZG9
- F. Checkpoint: Integer exponents GEJ
- L.2 Add and subtract polynomials 9A3

#### Geometry CP (9 lessons) - score 80 points or higher

- <u>A.1 Ratios and Proportions</u> 8EU
- <u>A.3 Properties of Exponents LNK</u>
- <u>A.4 Simplify Radical Expressions SC5</u>
- <u>A.5 Write Variable Expressions</u> 5RD
- <u>A.6 Solve Linear Equations PHF</u>
- <u>A.7 Solve Linear Inequalities</u> 9MX
- A.8 Solve Systems of Linear Equations 76G
- <u>A.9 Solve Quadratic Equations by Factoring ENU</u>
- A.10 Solve Quadratic Equations Using the Quadratic Formula WGU

#### Geometry Honors (15 lessons) - score 85 points or higher

- <u>A.1 Ratios and Proportions</u> 8EU
- A.3 Properties of Exponents LNK
- <u>A.4 Simplify Radical Expressions SC5</u>
- A.5 Write Variable Expressions 5RD
- <u>A.6 Solve Linear Equations</u> PHF
- <u>A.7 Solve Linear Inequalities</u> 9MX
- <u>A.8 Solve Systems of Linear Equations</u> 76G
- <u>A.9 Solve Quadratic Equations by Factoring ENU</u>
- A.10 Solve Quadratic Equations Using the Quadratic Formula WGU
- B.6 Solve multivariable equations LZD
- D.1 Domain and Range 78A
- H.4 Multiply complex numbers VZ8
- J.13 Match quadratic functions and graphs QCE
- <u>M.5 Simplify expressions involving rational exponents I 2VX</u>
- <u>N.2 Evaluate rational expressions I RHV</u>

# Algebra 3

#### Algebra 3 / Trig level 2 (11 lessons) - score 60 points or higher

- A.3 Simplify variable expressions using properties PVC
- B.1 Solve linear equations SNN
- D.6 Find the slope of a linear function W67
- E.1 Is (x,y) a solution to a system of equations? NJP
- E.6 Solve a system of equations using substitution BW5
- H.1 Introduction to complex numbers 5VV
- I.3 Factoring quadratics UB5
- J.13 Match quadratic functions and their graphs QCE
- K.1 Polynomial Vocabulary DYB
- <u>K.3 Multiply Polynomials</u> 8GN
- O.4 Composition of linear functions: find a value MFV

#### Algebra 3 / Trig CP (11 lessons) - score 80 points or higher

- <u>A.3 Simplify variable expressions using properties PVC</u>
- B.1 Solve linear equations SNN
- D.6 Find the slope of a linear function W67
- E.1 Is (x,y) a solution to a system of equations? NJP
- E.6 Solve a system of equations using substitution BW5
- H.1 Introduction to complex numbers 5VV
- I.3 Factoring quadratics UB5
- J.13 Match quadratic functions and their graphs QCE
- K.1 Polynomial Vocabulary DYB
- K.3 Multiply Polynomials 8GN
- O.4 Composition of linear functions: find a value MFV