

## **MCA Summer Assignment (2026-2027)**

Students transitioning from Algebra 2 to MCA must complete the following assignment prior to the first day of the 2026–27 school year.

### **Assignment Instructions**

1. Go to [www.ixl.com](http://www.ixl.com)
2. Log into your IXL account.
3. Click Learning → Math → Alg 2.
4. Complete each assigned skill topic listed by your teacher.
5. Reach a Smart Score of 85 or higher on each topic.

### **Important**

- This assignment will count as a TEST GRADE.
- It is DUE ON THE FIRST DAY OF SCHOOL.
- No late or partial credit will be given.

# June

Students transitioning from Algebra 2 to Math for College Algebra will need to complete the following assignments prior to the first day of the 2026-27 school year. Your goal should be to reach a Smart Score of 85 or higher on each IXL topic. Go to [IXL.com](https://www.ixl.com), log into your account, click "Learning", then "Math", and go to Algebra 2. Complete the following skill topics. Please enter your grade and have a parent initial the block.

## 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8 Add, Subtract, Multiply, & Divide Complex Numbers. K.6	9	10 Add, Subtract, Multiply, & Divide Polynomials. L.6	11	12 Study Memory Card Alg 2	13
14	15	16 Match quadratic functions and graphs. N.7	17	18 Solve a quadratic equation by factoring. O.3	19	20
21	22 Simplify radical expression using the distributive property. R.10	23	24 Composition of linear & quadratic functions: find a value. U.6	25	26 Study Memory Card Alg 2	27
28	29	30 Solve rational equations. X.8				

# July

Students transitioning from Algebra 2 to Math for College Algebra will need to complete the following assignments prior to the first day of the 2026-27 school year. Your goal should be to reach a Smart Score of 85 or higher on each IXL topic. Go to [IXL.com](https://www.ixl.com), log into your account, click "Learning", then "Math", and go to Algebra 2. Complete the following skill topics. Please enter your grade and have a parent initial the block.

## 2026

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 Find properties of a parabola from equations in general form. DD.8	3	4
5	6 Factor quadratics M.5	7	8 Transformations of functions. W.5	9	10 Study Memory Card Alg 2	11
12	13	14 Domain and Range 78A	15	16 Identify Functions LBJ	17	18 Rising MCA
19	20 Solve Linear Equations SNN	21	22 Graph Inequalities RK5	23	24 Study Memory Card Alg 2	25
26	27	28 Find the slope of a linear function. W67	29	30 Graph Linear functions. LSG	31	

Name:

Date:

Period:

## STUFF YOU MUST KNOW – Algebra 2

Memory Exponents	Order of Operations	Parent Functions
$1^2 =$ $2^2 =$ $3^2 =$ $4^2 =$ $5^2 =$ $6^2 =$ $7^2 =$ $8^2 =$ $9^2 =$ $10^2 =$ $11^2 =$ $12^2 =$ $13^2 =$ $14^2 =$ $15^2 =$ $16^2 =$ $17^2 =$ $18^2 =$ $19^2 =$ $20^2 =$	<b>Quadratic Formula</b> If $ax^2 + bx + c = 0$ , then $x =$	$y = \#$  $y = x$  $y = x^2$
$1^3 =$ $2^3 =$ $3^3 =$ $4^3 =$ $5^3 =$ $6^3 =$	<b>Discriminant</b> $< 0$ $= 0$ $> 0$	$y = x^3$
$2^1 =$ $2^2 =$ $2^3 =$ $2^4 =$ $2^5 =$ $2^6 =$ $2^7 =$ $2^8 =$ $2^9 =$ $2^{10} =$	<b>Keep/Change/Flip</b> $\frac{a}{\frac{b}{c}} =$ $\frac{a}{d}$	$y = \sqrt{x}$  $y =  x $
<b>Transformations- Oven In House</b> $y = a f(bx + c) + d$	<b>Midpoint Formula</b>	$y = \sqrt[3]{x}$
$y = f(x)$	<b>Distance Formula</b>	$y = b^x$
$y = f(x) - d$	<b>Slope-Intercept Form</b>	$y = \ln x$ $y = \log x$
$y = f(x - c)$	<b>Point-Slope Form</b>	$y = \frac{1}{x}$
$y = -f(x)$		$y = \frac{1}{x^2}$
$y = f(-x)$		$y = \frac{1}{x^2}$
$y = a f(x)$		$y = \ x\ $
$y = f(bx)$		
$y = f^{-1}(x)$		
<b>Fractions</b>		
$\frac{0}{\#} =$		
$\frac{0}{0} =$		
$\frac{\#}{0} =$		

<p><b>Exponents &amp; Radicals</b></p> $a^0 =$ $(ab)^n =$ $a^x b^y =$ $\sqrt{a} =$ $\frac{a^x}{a^y} =$ $\sqrt[n]{a} =$ $\left(\frac{a}{b}\right)^n =$ $\sqrt[n]{a^m} =$ $a^{-x} =$ $\sqrt[n]{ab} =$ $(a^x)^y =$ $\sqrt[n]{\frac{a}{b}} =$ <p><b>Factoring</b></p> <p>Difference of Squares  <math>a^2 - b^2 =</math></p> <p>Perfect Square Trinomial  <math>a^2 - 2ab + b^2 =</math>  <math>a^2 + 2ab + b^2 =</math></p> <p>Grouping  <math>ac + ad + bc + bd =</math></p>	<p><b>Imaginary Numbers</b></p> $\sqrt{-1} =$ $i^2 =$ $i^3 =$ $i^4 =$ <p><b>Logarithm Rules</b></p> <p>Change from log to exponential:  <math>\log_b y = x</math></p> $\ln y = x$ $\log y = x$ <p>Change from exponential to log:  <math>b^x = y</math></p> <p>More log rules:</p> $\log_a a =$ $\log_a 1 =$ $\log_a a^n =$ $\log_b (mn) =$ $\log_b \left(\frac{m}{n}\right) =$ $\log_b m^n =$	<p><b>Quadratics (Parabolas)</b></p> <p>Standard Form:</p> <p>Vertex Form:</p> <p>Vertex:</p> <p>Axis of Symmetry:</p> <p><b>Complete the Square</b></p> <p><b>Conjugate</b>  of <math>a + b</math> is <math>\overline{a + b}</math>  because <math>(a + b)(a - b) =</math></p> <p><b>Rationals</b>  Horizontal Asymptotes (HA)</p> <ol style="list-style-type: none"> <li></li> <li></li> <li></li> </ol> <p>Domain</p> <p>Vertical Asymptotes (VA)</p> <p>Points of Discontinuity (holes)</p> <p>x-intercepts (zeros, roots, solutions)</p> <p>y-intercepts</p>
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