Dear Precalculus student,

I hope that you're all enjoying your first few days of summer! Here's something that will make it a little more fun! Below you will find a list of problems from the Precalculus textbook that you should complete before the first day of classes. These problems mainly cover Algebra I, Algebra II, and Geometry skills. These are skills that, ideally, you should have down pat; that you don't even have to think, "How do I solve this problem?" Your work on these problems will be assessed upon your return to school and will be worth 4 homework assignments (a week's worth of assignments). Solutions to even numbered problems are below as well. Please present clear and organized work for each problem.

A quiz covering these sections will be given on the second or third day of class.

Many of you may want to complete this work as soon as possible and have it over and done with. If this is the case, please be sure to review your solutions in the days before school starts. The aim of this summer work is to keep your mathematical mind from rusting in the months that you'll spend away from school. We'll be hitting the ground running in August and you don't want to be out of breath. Enjoy!

See you all in August!

Mrs. Bowman E-mail: jbowman@keyschool.org

If you come across a topic with which you are uncomfortable, you may find the following websites useful:

http://www.khanacademy.org http://www.coolmath.com/ http://www.purplemath.com/

The following problems are assigned from our textbook, "Precalculus: Mathematics for Calculus, Fifth Edition" by James Stewart, Lothar Redlin, and Saleem Watson. ISBN: 978-1439049488

Suggested Guidelines:

1. Read over the lesson before attempting each problem set. If you are stuck on a problem, look back to the lesson in the text for guidance.
2. You will need a calculator to complete this problem set.
3. Be sure to check your answers!!
4. Use special expanding/factoring patterns throughout—i.e. $(x+y)^2 = x^2 + 2xy + y^2$ →Make use of this pattern instead of FOILing.
5. Perhaps a good timeline would be to do a section a day for one week.
6. If you complete these problems towards the beginning of the summer, remember to review the concepts covered to prepare for an assessment on the second or third day of classes.

Section Number	Section Name	Assignment
1.1	Real Numbers	pg 10-11 #19-33 odd, 41-69 odd, 75
1.2	Exponents and Radicals	pg 21-23 #1-27 odd,31,35,39,41,47,51-57 odd, 63,67,75,83,85,93,99
1.3	Algebraic Expressions	pg 31-32 #9, 11, 16, 17, 21, 23, 25, 33, 34, 38, 41, 43, 45, 47, 49, 51, 55-63 odd
1.5	Equations	pg 55-56 #3, 5, 9, 11, 15, 21, 23, 25, 27, 28, 32, 34, 39, 43, 45, 49, 55, 60, 67, 75, 81, 95, 96, 98
1.6	Modeling with Equations	pg 68-73 #1, 3, 6, 7, 10, 12, 15, 17, 21, 22, 25, 26, 29, 33a, 34a, 37, 41, 43, 44, 47, 49, 65, 73, 75, 77
1.8	Coordinate Geometry	pg 97-99 #5, 11, 13, 27, 29, 31, 33, 37, 40, 47, 49, 99
1.10	Lines	pg 120-121 #7,9,13,17,19-27 odd,31,45,57

Even Number Answers:

Section 1.3: 16.) $-3t^2+21t-22$; 34.) $1-6y+12y^2-8y^3$; 38.) $1-2b^2+b^4$

Section 1.5: 28.) $x=\dfrac{-6+a-2b+6c}{6}$; 32.) $r=\pm\sqrt{\dfrac{GmM}{F}}$; 34.) $i=-100\pm100\sqrt{A/P}$; 60.) $\theta=\dfrac{3}{4}$;

96.) $-2,-\dfrac{4}{3}$; 98.) $\varnothing$

Section 1.6: 6.) 795*n*; 10.) $\dfrac{d}{55}$; 12.) 131*p*+140; 22.)$32,500; 26.) 714; 34a.) $4\sqrt{5}$; 44.) $\dfrac{110}{\pi}\approx 35\ yds$

Section 1.8: 40.) (10, 13)