ARLINGTON HIGH SCHOOL

Summer Assignment Template	
Course Title: **Algebra 2 Honors**	
Teacher: Mrs. Glass and Mr. Scearce	
PLC Content Area: Math Algebra 2	
Summer Assignment Description	The summer assignment should be a review of pre-algebra and Algebra 1 topics.
Date Due	First day of class, August 7th
Estimated Time for Completion	2 hours
Tennessee Academic Standards/Approved Standards Supporting Reference (List standard(s) correlation to summer work)	Objective from Summer work: Correlating Tennessee State Standard Objective 1: 7.NS.A.1 / 7.NS.A.2 Objective 2: 6.EE.A.2.c Objective 3: 7.EE.B.4.a Objective 4: A1.A.REI.B.2 Objective 5: A1.F.IF.C.6.a Objective 6: A1.A.APR.B.2 Objective 7: A1.A.SSE.A.1.a Objective 8: A1.A.SSE.A.2 Objective 9: 8.EE.A.1 Objeti0ve 10: A1.A.SSE.B.3.a Objective 11: A1.A.APR.B.2
Rationale for Summer Assignment	The goal of the summer packet is to keep important and basic algebra skills up to date and fresh on the mind so that we can quickly jump into new material the first week of school and not spend the first week reviewing.
Resources needed to complete Summer assignment	Should not need additional resources, but could use the internet for any skill that may have been forgotten.

Final: 4/21/2020

<u>How</u> and <u>when</u> will <u>this</u> summer assignment be assessed and scored? Also, what grading category and what percentage will this summer assignment count in the student's grade?	The assessment will be scored as a completion grade due the first day of school, with each day late dropping the grade ten points according to the AHS Late work Policy. It will be a classwork assignment worth 100 pts. The classwork category is 30% of the total grade and this will be one of many, at least three, assignments in the classwork category.
Additional Summer Assessments (If applicable - <u>what</u> grading category and <u>what</u> percentage will each additional summer assignment count in the student's grade?)	There will be a summer packet test on Friday, August 11th with 100 pts in the Test grade category.
Teacher Summer Contact Information	nathan.scearce@acsk-12.org or suzanne.glass@acsk-12.org

Final: 4/21/2020

Arlington High School

Algebra II Honors ~ Summer Packet

<u>DUE THE FIRST DAY OF SCHOOL</u>

This summer packet is for all students enrolled in Algebra II Honors for the 2023-2024 school year. The entire packet is due the first day of school. The problems in this packet are designed to help you review topics that are important to your success in Algebra II Honors. The material included in this packet will be tested the first week of school and no calculator will be allowed.

Follow the directions in the packet and complete all the problems, neatly showing all of your work. You will not be given credit for this packet if no work is shown. You should be able to complete the packet WITHOUT the use of a calculator. This packet will count as part of your first quarter Algebra II Honors grade. Any packets not turned in the first day of school will not be given full credit. Failure to turn in the packet by Wednesday, August 9th will result in a zero.

If you have forgotten how to do any of the problems in the packet, use the internet to "google" the objectives for help.

I look forward to meeting you and working with you in the Fall.

Enjoy your summer!

ALGEBRA II HONORS SUMMER PACKET

> **Work should be shown for all problems. Box all answers.**

Objective 1: Perform basic operations with fractions.

Evaluate each expression.

1. $\dfrac{2}{6} + \dfrac{1}{6}$

2. $\dfrac{1}{3} + \dfrac{2}{5}$

3. $\dfrac{4}{5} - \dfrac{3}{7}$

4. $\dfrac{4}{3} * \dfrac{3}{7}$

5. $\dfrac{2}{7} \div \dfrac{1}{5}$

6. $\dfrac{a}{b} \div \dfrac{c}{d}$

Objective 2: Evaluate each expression. (order of operations)

7. $14 + \left(6 \div 2\right)$

8. $10 \div 5 \cdot 4$

9. $3\left(4 - 7\right) - 11$

10. $1 + 2 - 3\left(4\right) \div 2$

11. $\dfrac{-8\left(13 - 37\right)}{6}$

12. $\left[4\left(5 - 3\right) - 2\left(4 - 8\right)\right] \div 16$

Objective 3: Solve equations.

Solve for <u>x</u>.

13. $6x - 2 = 5x - 7 - 3x$

14. $3\left(x - 5\right) + 8x = 18 - \left(3 - 10x\right)$

15. $x - \dfrac{c}{2} = -\dfrac{3c}{2}$

16. $c + ax = dx$

17. $t = \dfrac{pd}{2x}$

18. $\left|3x + 19\right| = 13$

Final: 4/21/2020

Objective 4: Solve inequalities. Graph your solution on a number line.

19. $36 - 11x \geq -63$ 20. $5 - 3\left(10 - 7x\right) < 4\left(2x + 10\right)$ 21. $14 < 5 - 3x \leq 53$

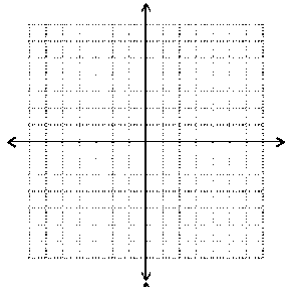22. $3x - 13 < -4$ or $7 - 2x \leq 5$ 23. $\left|x + 7\right| > 12$
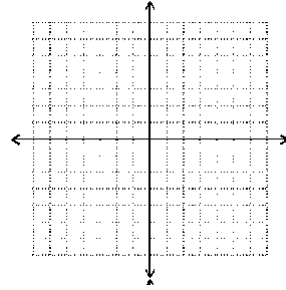
Objective 5: Graph linear equations.

Graph each line on the coordinate plane provided.

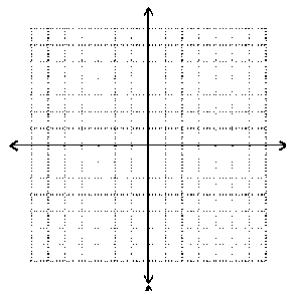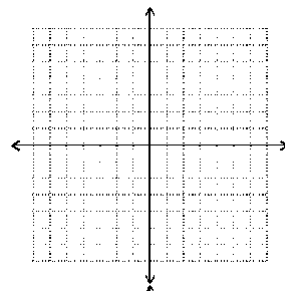24. $x = 5$ 25. $3y = 12$

26. $y = \dfrac{1}{5}x - 2$ 27. $4x - y + 2 = 0$

Objective 6: Identify x and y intercepts.

Find the x and y intercepts of the line. Express your answer as an ordered pair.

28. $10x - 4y = -20$ 29. $y = 2x + 3$ 30. $x = 3$

Objective 7: Find the slope of a line.

Find the slope of the line.

31. through $(4,9)$ and $(11,5)$ 32. through $(8,-1)$ and $(-8,-1)$ 33. $y = 2x - 5$

34. $y = -1$ 35. $x = 4$ 36. $6x - 10y = -1$

Objective 8: Write the equation of a line.

Write the equation of the line in slope-intercept form.

37. slope = -2, y-intercept = -7   38. slope = -4, passing through $(-2,-5)$

Objective 9: Simplify expressions involving exponents.

Simplify each expression.

39. $d^2 d^4$ 40. $(-a)^2 (-a)^3$ 41. $(x^4 y^5)^3$ 42. x^{-3}

43. $\dfrac{a^{10} b^2}{a^4 b^9}$ 44. $\dfrac{(xy^3)^2}{xy^{-1}}$

Objective 10: Factor polynomials.

Factor completely.

45. $x^2 - 49$

46. $3x^2 - 75x$

47. $x^2 + 12x + 32$

48. $x^2 - 3x - 28$

49. $x^2 - 6x + 8$

50. $3x^2 - 8x + 5$

51. $2x^2 + 13x + 21$

52. $x^4 - 81$

Objective 11: Graph quadratic equation.

Graph each parabola.

53. $y = x^2 - 6x + 5$

54. $f(x) = x^2 - 4$