Adv Alg 2 Summer Worksheet #1   Name _____

1. Write the equation of the line passing through the points (1 -1) and (4,8) in <u>slope-intercept form</u>	2. Write the equations of the line passing through the points (3,-5) and (-2, 7) in <u>point-slope form</u>.	3. Solve and graph the solution on a number line. Then state the solution. $7x - 5 > 65 \ or -3x - 2 \geq -2$
4. Solve and graph the solution on a number line. Then state the solution. $7k + 6 > -50 \ and \ 7k \leq -14$	5. Solve and graph the solutions on a number line. $$|2x + 1| > -5$$	6. Solve using the quadratic formula. $$x^2 + 1 = 4x$$
7. Solve using the zero product property. $$9x^2 = 15x - 4$$	8. Solve and graph the solutions on a number line. $$3|2x + 4| = 6$$	9. Factor completely : $$5x^2 - 32x - 21$$
10. Factor completely : $$2x^2 - 6x - 20$$	11. Solve the system of equations. Write the solution as an ordered pair. $$2x - 3y = 16$$ $$5x + 6y = 13$$	12. Solve the system of inequalities by graphing. $$y > -x + 1$$ $$x - y \geq -2$$