Adv Alg 2 Summer Worksheet #4 Name _____

1. Write the equation of the line passing through the points (9,14) and (17,21) in <u>slope-intercept form.</u>	2. Write the equations of the line passing through the points (16,3) and (-4,7) in <u>point-slope form</u>.	3. Solve and graph the solution on a number line. Then state the solution. $3x + 2 \geq -8 + x \ \ or \ -7x + 14 \geq 21$
3. Solve and graph the solution on a number line. Then state the solution. $5 - 2y \leq -7 \ \ and \ 5y > -4 + y$	5. Solve and graph the solutions on a number line. $\lvert x + 5 \rvert + 3 < 4$	6. Solve using the quadratic formula. $3x + 2 = -x^2$
7. Solve using the zero product property. $4x^2 + 2 = -9x$	8. Solve and graph the solutions on a number line. $\left\lvert \frac{1}{2}x - 4 \right\rvert = 1$	9. Factor completely : $2n^2 + 13n - 7$
10. Factor completely : $4a^2 - 20a - 56$	11. Solve the system of equations. Write the solution as an ordered pair. $3x - 5y = 12$ $6x + y = 5$	12. Solve the system of inequalities by graphing. $3x - 2y \geq 6$ $y > -x$