Algebra II Honors **Name:**_____
Systems of Equations/Inequalities Review **Date:**_____ **Period:**_____

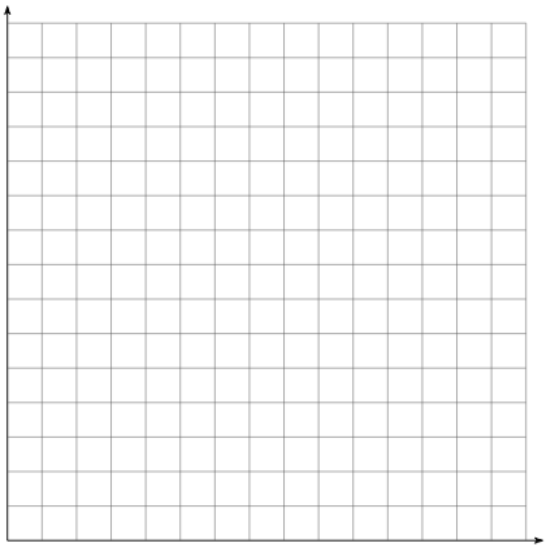
1.) At a college production of *Streetcar Named Desire*, 400 tickets were sold. The ticket prices were $8, $10, and $12, and the total income from ticket sales was $3700. How many of each type were sold if the combined number of $8 and $10 tickets sold was 7 times the number of $12 tickets sold?

2.) An inheritance of $12,000 was invested among three funds: a money-market fund that paid 5% annually, municipal bonds that paid 6% annually, and mutual funds that paid 12% annually. The amount invested in mutual funds was $4000 more than the amount invested in municipal bonds. The total interest earned during the first year was $1120. How much was invested in each type of fund?

3.) Two teams playing in a football game scored a total of 72 points. The points came from a total of 20 different scoring plays, which were a combination of touchdowns, extra-point kicks, and field goals, worth 6 points, 1 point, and 3 points, respectively. The same number of extra-point kicks were scored as field goals were kicked. How many touchdowns, extra-point kicks, and field goals were scored?

4.) Madison is thinking about leasing a car for two years. The dealership says that they will lease her the car she has chosen for $326 per month with only $200 down. However, if she pays $1600 down, the lease payment drops to $226 per month. When will the two plans cost the same? Which 2-year lease should she choose if the down payment is not a problem?

5.) A furniture company can sell all the tables and chairs it produces. Each table requires 1 hour in the assembly center and $1\frac{1}{3}$ hours in the finishing center. Each chair requires $1\frac{1}{2}$ hours in the assembly center and $1\frac{1}{2}$ hours in the finishing center. The company's assembly center is available 12 hours a day and its finishing center is available 15 hours a day. Find and graph a system of inequalities describing all possible production levels.



6.) A person with no more than $15,000 to invest plans to place money in two investments. One investment is high risk, high yield; the other is low risk, low reward. At least $2000 is to be placed in the high-risk investment. Furthermore, the amount invested at low-risk should be at least three times the amount invested at high-risk. Find and graph a system of inequalities that describes all possibilities for placing the money in the high and low risk investments.