Systems Exam

1. Describe the three type of systems of equations, sketch the result and indicate their resulting solution sets.

2. Solve the system of equations using the indicated method

   a) Addition - Subtraction Method

   $2x + 3y = 14$

   $x - 5y = 7$

   b) Substitution Method

   $2x + 5y = 9$

   $3x - 2y = 4$

   c) Graphic method

   $2x + y = 8$

   $x - y = -2$

3. Change the following into integral coefficients (no fractions) but **Do Not Solve**

   a) $2/5x + 6/4y = 1$

   $-3/4x + 2/7y = 2$

   b) $3/4x + 5/2y = 2$

   $-7/3x + 2/5y = 4$

4. Write the open sentences for each of the following but do not solve.

   a) The sum of two numbers is 26. The larger number is 5 more than twice the smaller. Find the two numbers.

   b) If one complementary angle is five less than the other, find the size of each of the angles.

   c) If 6 times one supplementary angle is 2 more than 5 times the other, find the size of each of the angles.

   d) If the concert was to be sold out, 1200 tickets would be sold and the total revenue would be 20,000. How many adult tickets and how many student tickets were sold if adult tickets cost $20.00 and student tickets cost $10.00?