Algebra and Geometry Review 8

 Sarah and Maggie were traveling from Chicago to Washington DC, which is approximately 700 miles. Sarah started first and traveled at 50 mph. Maggie left 2 hours later and traveled at 65 mph. Did Maggie overtake Sarah before they got to Washington DC and if so, how far away from Washington were they? (Show all of your work on the back.) 	 2. True or False. A) Two angles that are acute can also be complementary. B) Two angles that are obtuse can also be supplementary.
3. Solve the system of equations. $5x + 2y = 1$ $\underline{y = x + 4}$	4. What does CPCTC stand for?
The Venn Diagram shown below shows the number of students that are in soccer, in band, and in both. Answer the questions based on the diagram.5. How many total students are represented in the diagram?	6. The given shape is a parallelogram. What is the value of x + y? 15 $x+3 \underbrace{15}_{x+3} \underbrace{8}_{x+y+7}$
7. How many students are in band only?	8. How many diagonals can be drawn in a pentagon?
9. Solve for x. $\sqrt{10x+3} = 5$	10.Find the area of a regular hexagon that has an apothem of $3\sqrt{3}$.