Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review 3.5, 3.7. 3.8

1. How do you write “*S* is the set of natural numbers that are less than 8” in roster form?
2. In set-builder notation, how do you write the solutions of 2*x-7* > 11?
3. What are all the subsets of the set {7, 8, 9}?
4. Suppose *U* ={1, 2, 3, 4, 5} is the universal set and *A* ={1, 5}. What is *A*’?
5. Given that the universal set *U* = {baseball, basketball, football, tennis ball, soccer ball, volleyball} and that set *A* is the set of sports balls that are spherical, what is the complement of set *A*?
6. Write the phrase “all real numbers that are greater than 24 and less than or equal to 7”as a compound inequality. Then write it in set builder and roster form.
7. List all the subsets of {s, t}
8. List all the subsets of {5, 10, 15}
9. How do you write “A is the set of even whole numbers that are less than 18” in roster form and in set-builder notation?
10. Suppose U = {1, 2, 3, 4, 5, 6, 7, 8} and B = {2, 4, 6, 8}. What is B’?
11. Given A = {1, 2, 3, 4, 5, 6, 7, 8, 9} and B = {0, 2, 4, 6, 8, 10}. What is A  B?
12. 25. Given A = {1, 2, 3, 4, 5, 6} and B = { 4, 5, 6, 7, 8, 9}. What is A U B?
13. Let P = {1, 5, 7, 9, 13}, R = {1, 2, 3, 4, 5, 6, 8} and Q = {1, 3, 5}. Draw a Venn Diagram that represents the intersection and the union of the sets.
14. Let N = {xl x is a multiple of 2} and P = {xl x is a multiple of 6}. Describe the intersection of N and P.
15. In a class of 450 students, 300 are taking a mathematics course and 260 are taking a science course. If 140 of these students are taking both courses, how many students are not taking either of these courses? (Hint: Draw a Venn Diagram)