UB SAT 2009
Homework #1
Number Sets
Due: Mon, Feb 2

In the space provided, make your own subset for *each* of the number sets on Notes #1. Each subset should have at least 5 elements and your subset must be different from the examples I have given you in the notes. You don't need to be exotic, meaning you don't need to put much thought into each subset. Make it easy on yourself, don't think too hard about what numbers you might use.

1. 2.

3. 4.

5. 6.

7. 8.

9. 10.

11. 12.

13. 14.

In 15-20, you are given a subset from the number sets on Notes #1. Use the notes to name all of the possible number sets each subset can be a part of.

15. $\{-2, 1, 1.5, 0\}$ 16. $\left\{\frac{5}{4}, \sqrt{3}, 5.5, 19\right\}$ 17. $\{13, 900, 146534\}$

18. $\left\{-12, -\frac{9}{2}, 4.5, 8\right\}$ 19. $\{-9, 3i, 4, 5-i\}$ 20. $\varnothing$

21. Find a subset of the positive integers with at least 5 elements (at least 5 numbers).

22. Find a subset of nonnegative even numbers.

23. Find two subsets of negative real numbers each with at least 4 distinct elements.

24. Find a subset that is not positive and not a part of $\mathbb{Q}$ (rational numbers). What is this set called (disregard complex numbers)?