

Worksheet 1

This is a scavenger hunt for PMAT 315 Abstract Algebra. To complete the hunt, you may not use any textbooks or notes, but are encouraged to talk to each other and to the lab instructor. The first person or group of people to complete the scavenger hunt will win a prize.

1. What is your professor's e-mail address?
2. What are the title and author of the required textbook for this course?
3. What is the name of your lab instructor (spelling counts!)?
4. Find the name of a classmate who is enrolled in at least one other course that you are, or have been, enrolled in.
5. Produce a Venn diagram illustrating the theorem $A \cap (B_1 \cup B_2) = (A \cap B_1) \cup (A \cap B_2)$.
6. Produce two infinite sets of numbers whose intersection is the empty set.
7. Produce a set of numbers S with the property that if $x, y \in S$ then $x + y \in S$ as well.
8. Produce a set T of numbers with the property that if $x \in S$, then $-x \in S$ as well.
9. Produce a map of infinite sets which is onto.
10. Produce a map of sets which is a bijection.