**Math 2040 Exam 2 Fall 2022 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Write down the power set of
2. Let Find:
3. Find the union and intersection of the family , where
4. Give an example of a family of sets which is disjoint but not pairwise disjoint.
5. Show, using PMI, that
6. Show, using PMI, that
7. Show, using PMI, that
8. Show, using PMI, that
9. Give examples of non-empty sets such that
10. A is not a subset of B, B is not a subset of C, but A is a subset of C.
11. Find the Also find integers such that