

MATH 1030: Homework 2

due January 17, 2014

Instructions: Do the following problems on a separate sheet of paper. Show all of your work.

Book Exercises

§1C Exercises 14, 18, 26, 66, 81, 87

Problem 1

There were 9 Warriors that went up to the Bronx that night, 4 of which were wearing shirts under their vests. Of the 9, only 6 of them made it back to Coney Island. Of the 6 that got back to Coney, there were 4 which were not wearing shirts under their vests. How many of the Warriors that were not wearing shirts under their vests did not make it back to Coney Island?

Problem 2

At the time of Cyrus' death, there were 250 total gangs in New York City.

45 of the Gangs were from the Bronx

100 of the gangs went to the big meeting in the Bronx, 22 of which were from the Bronx

The Warriors bopped their way through 6 gangs on their way back to Coney: the Turnbull AC's, the Orphans, the Lizzies, the Baseball Furies, the Punks, and the Rogues.

The Orphans and the Turnbull AC's were the only gangs from the Bronx that the Warriors bopped their way through.

The Lizzies and the Orphans were the only gangs not at the meeting that the Warriors bopped their way through.

Draw a Venn diagram describing this set of data and use it to answer the following questions.

- a) How many gangs in New York City did not go to the meeting and did not get bopped through by the Warriors?
- b) How many gangs from the Bronx that went to the meeting did not get bopped by the Warriors?

Problem 3

The Grammercy Riffs, headed by the late Cyrus, were the biggest gang in all of New York City. Suppose they had 120 members.

95 of the Riffs knew karate.

25 of the Riffs were at the meeting.

40 of the Riffs were dressed in orange.

20 of the Riffs that were at the meeting were dressed in orange.

18 of the Riffs that were at the meeting knew karate.

32 of the Riffs that knew karate were dressed in orange.

16 of the Riffs that were at the meeting both knew karate and were dressed in orange.

Draw a Venn diagram describing this set of data and use it to answer the following questions.

- a) How many of the Riffs either knew karate or were dressed in orange?
- b) How many of the Riffs did not know karate, were not dressed in orange, and did not attend the meeting?