

# MATH 108• COMPUTER MATHEMATICS

## SECOND SEMESTER GROUP PROJECT

Department : Faculty of Information & Communication Technology

Submission Date : Week 12

**Major**

**Project**

**15%**

Deadline Date : Week 13

Module Coordinator : Mr Cole

Prepared by: Oluwatosin B. Ayorinde Approved by AQA:

Signature: Signature:

##### **INFORMATION FOR CANDIDATE**

##### 1. This Assignment is worth 15% of the overall semester assessment.

##### 2. The total number of marks available for this test is 100 Marks.

##### **QUESTIONS**

##### In a class of 100 students, 35 like science and 45 like math. 10 like both. How many like either of them and how many like neither?

##### There are 30 students in a class. Among them, 8 students are learning both English and French. A total of 18 students are learning English. If every student is learning at least one language, how many students are learning French in total?

##### Among a group of students, 50 played cricket, 50 played hockey and 40 played volley ball. 15 played both cricket and hockey, 20 played both hockey and volley ball, 15 played cricket and volley ball and 10 played all three. If every student played at least one game, find the number of students and how many played only cricket, only hockey and only volley ball?

##### Workers are grouped by their areas of expertise, and are placed on at least one team. 20 are on the marketing team, 30 are on the Sales team, and 40 are on the Vision team. 5 workers are on both the Marketing and Sales teams, 6 workers are on both the Sales and Vision teams, 9 workers are on both the Marketing and Vision teams, and 4 workers are on all three teams. How many workers are there in total?

##### Each of the 59 members in a high school class is required to sign up for a minimum of one and a maximum of three academic clubs. The three clubs to choose from are the poetry club, the history club, and the writing club. A total of 22 students sign up for the poetry club, 27 students for the history club, and 28 students for the writing club. If 6 students sign up for exactly two clubs, how many students sign up for all three clubs?

##### A coin is thrown 3 times .what is the probability that atleast one head is obtained?

##### Three bags contain 3 red, 7 black; 8 red, 2 black, and 4 red & 6 black balls respectively. 1 of the bags is selected at random and a ball is drawn from it. If the ball drawn is red, find the probability that it is drawn from the third bag.

##### This semester, each of the 90 students in a certain class took at least one course from A, B, and C. If 60 students took A, 40 students took B, 20 students took C, and 5 students took all the three, how many students took exactly two courses?

##### When Ms. Mary looked at the rosters for this term's classes, she saw that the roster for her Math class (M) had 26 names, the roster for her Database class (D) had 28, and the roster for her statistics class (S) had 18. When she compared the rosters, she saw that M and D had 9 names in common, M and S had 7, and D and S had 10. She also saw that 4 names were on all 3 rosters. If the rosters for Ms. Mary 3 classes are combined with no student's name listed more than once, how many names will be on the combined roster?

1. Find the probability that a leap year has 52 Sundays.