



**Maths
Junior Certificate
Higher Level**

**Past Exam Questions on
PM Probability**

Q7 2013 Paper 2

Question 7

(Suggested maximum time: 10 minutes)

In a survey, 54 people were asked which political party they had voted for in the last three elections. The results are as follows:

30 had voted for the Conservatives

22 had voted for the Liberals

22 had voted for the Republicans

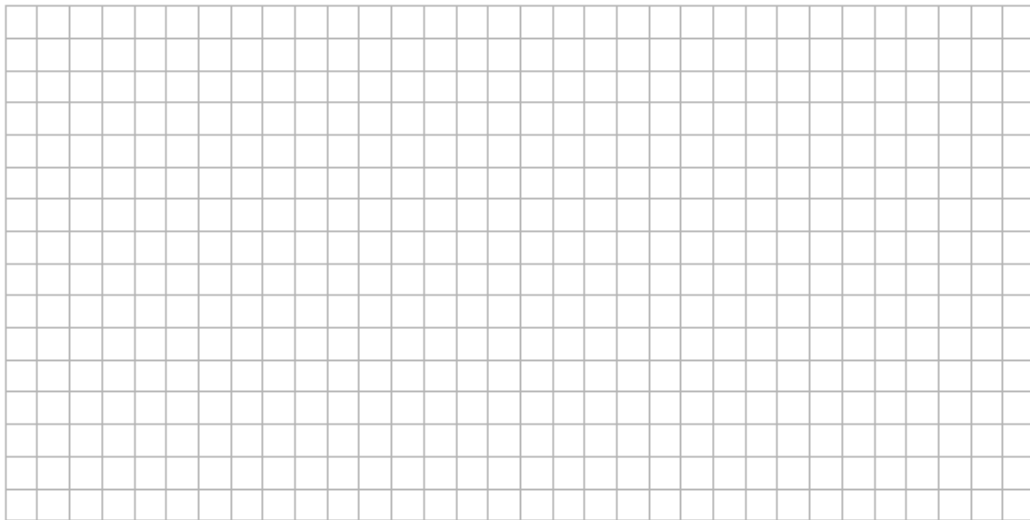
12 had voted for the Conservatives and for the Liberals

9 had voted for the Liberals and for the Republicans

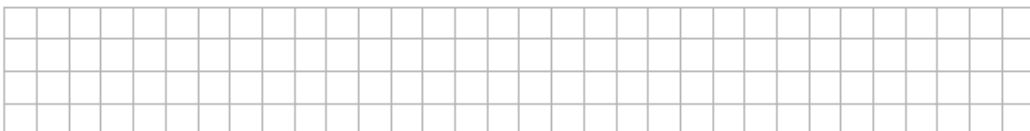
8 had voted for the Conservatives and for the Republicans

5 had voted for all three parties.

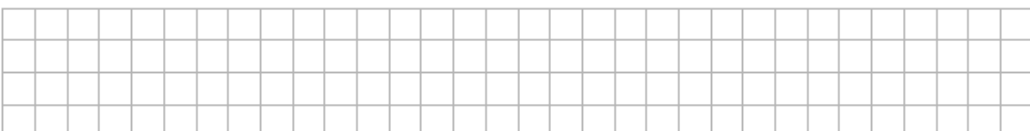
- (a) Represent the information in a Venn diagram.



- (b) If one person is chosen at random, what is the probability that the person chosen did not vote in any of the three elections?



- (c) If one person is chosen at random, what is the probability that the person chosen voted for at least two different parties?



- (d) If one person is chosen at random, what is the probability that the person chosen voted for the same party in all three elections?

