1. Find P(A) and P(A') in the following cases:

(i) Odds of A are 9:12. (ii) Odds against A are 4:11. (iii) Odds of A are 24:32.

2. In a city 60% read news paper A, 40% read news paper B and 30% read news paper C, 20% read A and B, 30% read A and C, 10% read B and C. Also 15 % read papers A, B and C. Identify the percentage of people who do not read any of theses news papers.

|  |
| --- |
| 3. Box contains 5 red balls and 8 violet. A ball is removed and replaced by two of the other colour and then a second ball is drawn. Evaluate:(i) The probability that the second ball is violet. (ii) The probability that both balls drawn from the box are the same colour. (iii) The probability that the second ball is red.  4. |
| In a classroom there are 100 pupils, of whom 40 are boys, 30 wear glasses, and 15 are boys who wear glasses. If one student from the class is randomly selected:  (i) Calculate the probability that the student will be a girl who does not wear glasses.  (ii) Identify the probability that the student is a girl with wearing glass or a boy.  (iii) If we know that the student selected does not wear glasses, identify probability that it will be a boy? |

5. We have a cancer-detecting test which gives which gives a positive result for 90% of people who do have the cancer, but also gives a positive result for 10% of people who don’t actually have the cancer. A patient comes in and gets a positive result. How worried should they be? (In other words, what is the chance that they do actually have cancer?)