Fill in the blanks

1. If A={1,2,3,4,6} and B= {2,4,5} the probability of A given B is .....
2. In a school, there are 1000 students, out of which 430 are girls. It is known that out of 430, 10% of the girls study in class XII. The probability that a student chosen randomly studies in Class XII given that the chosen student is a girl .....
3. Two balls are drawn at random with replacement from a box containing 10 black and 8 red balls. The probability of one of them is black and other is red.....
4. Given three identical boxes I, II and III, each containing two coins. In box I, both coins are gold coins, in box II, both are silver coins and in the box III, there is one gold and one silver coin. A person chooses a box at random and takes out a coin. If the coin is of gold, the probability that the other coin in the box is also of gold.....

A doctor is to visit a patient. From the past experience, it is known that the probabilities that he will come by train, bus, scooter or by other means of transport are respectively 3/10,1/5,1/10,2/5. The probabilities that he will be late are 1/3,1/4,1/12 if he comes by train, bus and scooter respectively, but if he comes by other means of transport, then he will not be late. When he arrives, he is late. What is the probability that he comes by train.....