Basic probability

Practice problems

1. A card is drawn from a pack of 52 cards what is the probability that theen or ce card is either queen or club
Ans:4/13

2. A and B are two players rolling the dice.If a throws 10 find the probability that B throws more than A.
Ans:1/12

3. Two dice are rolled .Find the probability of getting an even number on the first die or total of 8.
Ans:5/9

4. 60% of the employees are college graduates of these 10 % are in sales department. Of the employees who did not graduate from the college 80% are with sales department.what is the probability that the
(i) An employee selected at random is in sales department
(ii) An employee selected at random is neither in sales nor a college graduate.
Ans: (i)0.38   (ii)0.02

5. If A and B are two independent events such that $P(A^c)=0.7$,$P(B^c)=K$ and $P(AUB)=0.8$.Find the value of K
Ans:2/7

6. A bag contains 10 gold and 8 silver coins.Two successive drawings of 4 coins are made such that (i) coins are replaced before second trail
(ii) coins are not replaced before second trail
Determine the probability that the first drawing will give 4 gold and second 4 silver coins
Ans:(i) (independent events) $P(A$ and $B)= P(A)P(B)$,$^{10}C_4/(^{18}C_4)*\,^8C_4/(^{18}C_4)$
(ii) dependent $P (A$ and $B) =P(A)P(B/A),$ $^{10}C_4/(^{18}C_4)*\,^8C_4/(^{14}C_4)$

7. 'A' speaks truth 4 out of 5 times.A die is rolled he reports there is 6. What is the chance actuallu was 6.
Ans:4/9