1.	15 defective pens are accidentally mixed with 145 good ones. One pen is taken out at random from this lot. Determine the probability that the pen taken out is a good one.
2.	Two dice are tossed simultaneously. Find the probability of getting (a) An even number on both the dice (b) The sum of two numbers more than 9.
3.	There are 80 cards numbered from 1 to 80. One card is drawn at random from them. Find the probability that the number on the selected card is not divisible by 8.
4.	Two dice are thrown at the same time and the product of the numbers appearing on them is noted. Find the probability that the product is a prime number.
5.	A bag contains 4 red, 5 white and some yellow balls. If probability of drawing a red ball at random is $\frac{1}{5}$, then find the probability of drawing a yellow ball at random.
6.	The king, queen and ace of clubs and diamonds are removed from a deck of 52 playing cards and the remaining cards are shuffled. A card is randomly drawn from the remaining cards. Find the probability of getting (a) A card of clubs.　　　　(b) a red coloured card
7.	Three unbiased coins are tossed simultaneously. Find the probability of getting: (i)　　At least one head　(ii) exactly one tail　　(iii) two heads and one tail
8.	A jar contains 54 marbles, each of which is blue, green or white. The probability of selecting a blue marble from the jar is $\frac{1}{3}$, and the probability of selecting a green marble at random is $\frac{4}{9}$. How many white marbles does this jar contain?
9.	A box contains 90 discs which are numbered 1 to 90. If one disc is drawn at random from a box, find the probability that it bears a: (i)2 digit number less than 40 (ii) number divisible by 5 and greater than 50　(iii) a perfect square number
10.	A number x is selected at random from the numbers 1, 2, 3 and 4. Another number y is selected at random from the numbers 1, 4, 9 and 16. Find the probability that the product of x and y is less than 16.

11.	In a game, the entry fee is ₹5. The game consists of tossing a coin 3 times. If 1 or 2 heads show, Sweta gets her entry fee back. If she throws 3 heads, she receives double the entry fees. Otherwise, she will loose. For tossing a coin 3 times find the probability that she:
	(i) Loses the entry fee (ii) gets double entry fee (iii) just gets her entry fee

12.	**Case Study Based:** In a survey on holidays, 120 people were asked to state which type of transport they used on their last holiday. The following pie chart shows the results of the survey.
	Observe the pie chart and answer the following questions:
	(i) If one person is selected at random, find the probability that he/she travelled by bus or ship.
	(ii) Which is most favourite mode of transport and how many people used it?
	(iii) (a) A person is selected at random. If the probability that he did not use train is 4/5, find the number of people who used train.
	OR
	(b) The probability that randomly selected person used aeroplane is 7/60. Find the revenue collected by the air company at the rate of ₹ 5000 per person.

Answers

1	$\dfrac{29}{32}$	**2**	$\dfrac{1}{4}, \dfrac{1}{6}$	**3**	$\dfrac{7}{8}$	**4**			$\dfrac{1}{6}$
5	$\dfrac{11}{20}$	**6**	$\dfrac{5}{23}, \dfrac{1}{2}$	**7**	$\dfrac{7}{8}, \dfrac{3}{8}, \dfrac{3}{8}$	**8**			12
9	$\dfrac{1}{3}, \dfrac{4}{45}, \dfrac{1}{10}$	**10**	$\dfrac{1}{2}$	**11**			$\dfrac{1}{8}, \dfrac{1}{8}, \dfrac{3}{4}$		
12			$\dfrac{23}{120}, 59, 24$ OR ₹ 70 000						