



SBI Apprentice 2020 की तैयारी

Quantitative Aptitude



Probability

(प्रायिकता)

Part-2

2:00 PM





PROBABILITY

PROBABILITY

$$P(E) = \frac{\text{Sample points (S.P.)}}{\text{Sample space (S.S.)}}$$

The set of all possible out comes of an experiment is called the sample space. Every out comes (element) of the sample space is called sample point.

TYPE OF QUESTIONS

- **Coins**
- **Dice**
- **Cards**
- **Balls (Marbles)**
- **Miscellaneous**



COINS

SAMPLE SPACE OF COINS

$$1C = 2^1 = 2$$

$$2C = 2^2 = 4$$

$$3C = 2^3 = 8$$

$$\text{'N' coins} = 2^n$$

Ex: Two coins are tossed simultaneously find the probability of getting- (i) Head on both coins.

Sol:



Ex: Two coins are tossed simultaneously. Find the probability of getting- (ii) None Head on both coins

Sol:



Ex: Two coins are tossed simultaneously. Find the probability of getting-(iii) 1 Head & 1 tail on both coins ?

Sol:



Ex: Five coins are tossed simultaneously. Find the probability of getting-exactly two heads.

Sol:



Ex: Four coins are tossed simultaneously. Find the probability of getting-at least two tails.

Sol:





DICE

SAMPLE SPACE FOR DICE

$$1 - \text{dice} = 6^1 = 6$$

$$2 - \text{dice} = 6^2 = 36$$

$$3 - \text{dice} = 6^3 = 216$$

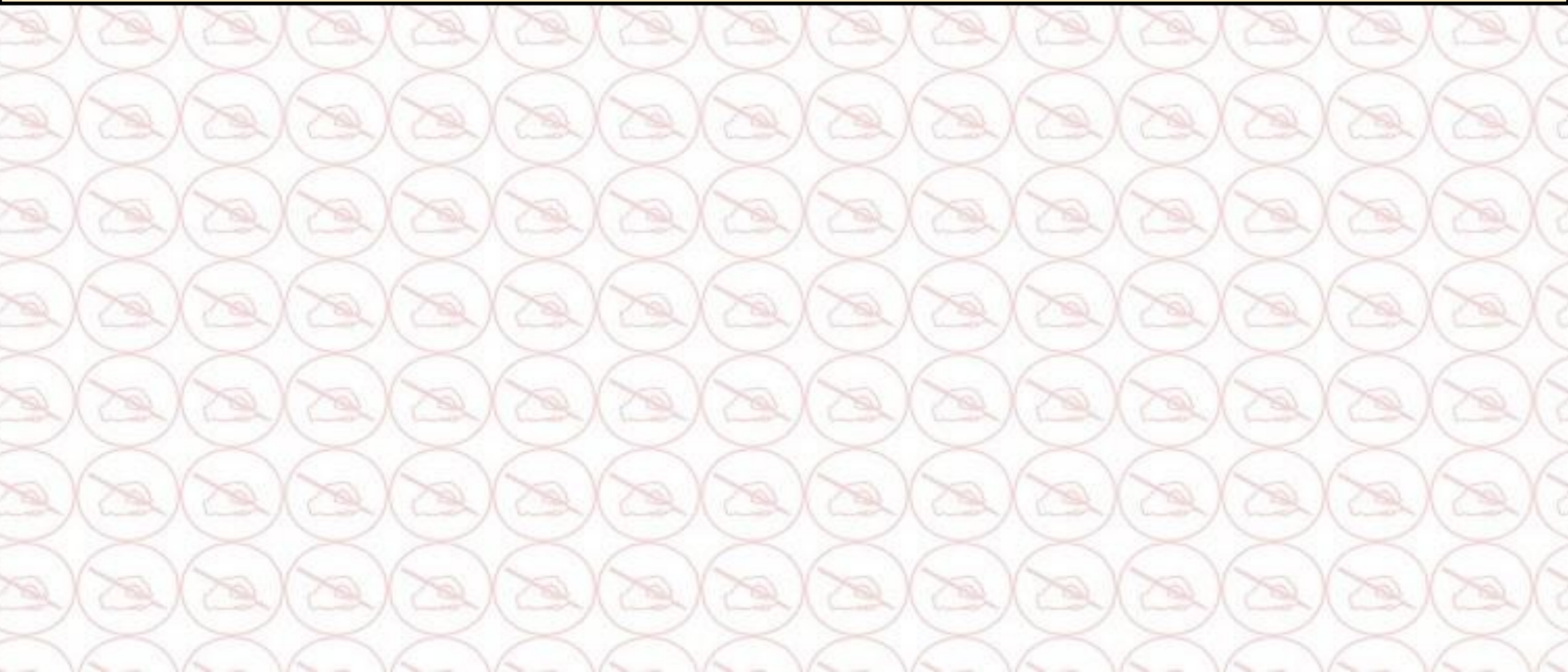
$$\text{'N'-dice} = 6^n$$

DICE

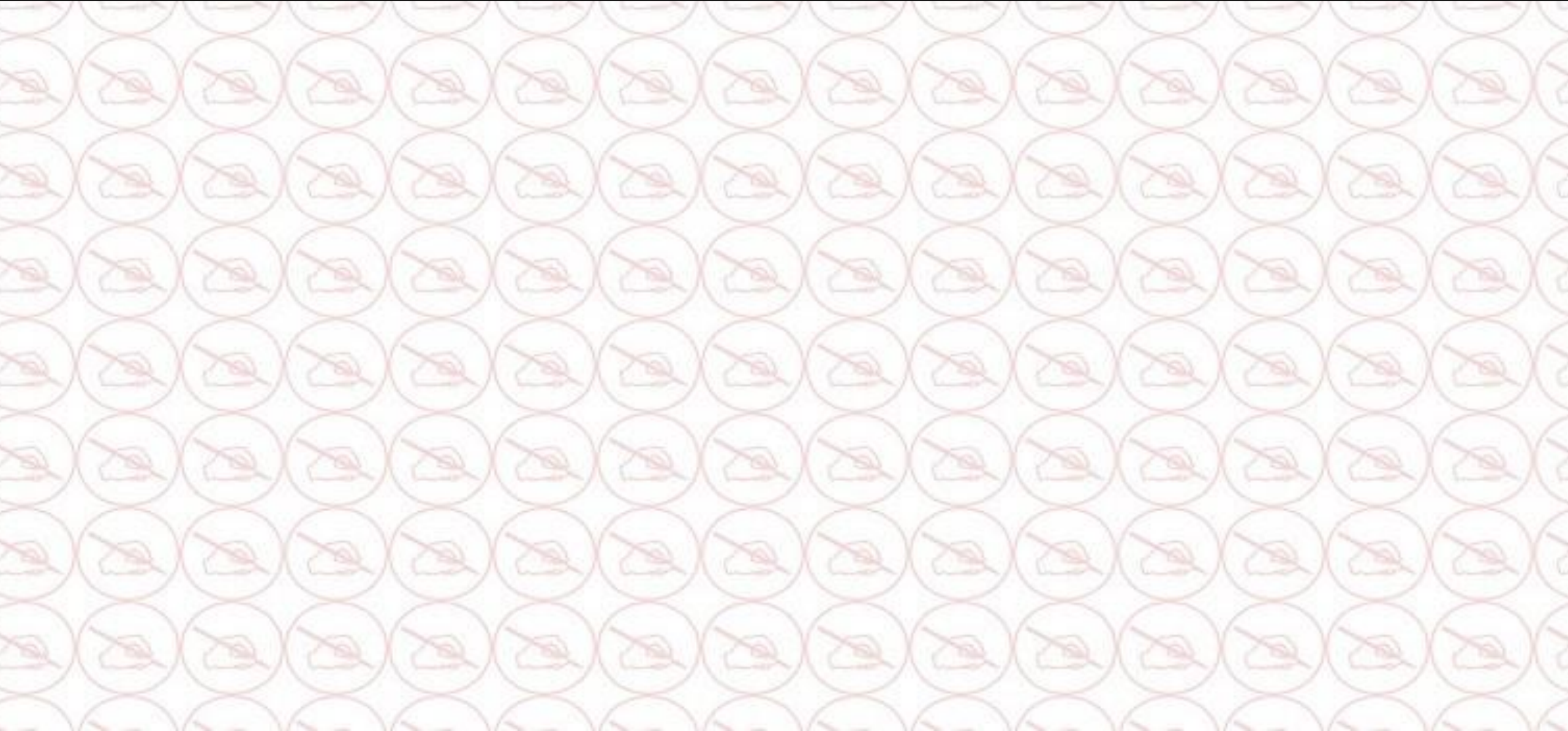
Sum			No. of Chance	
2	or	12	→	1
3	or	11	→	2
4	or	10	→	3
5	or	9	→	4
6	or	8	→	5
		7	→	6

Note: Applicable Only on 2 dice.

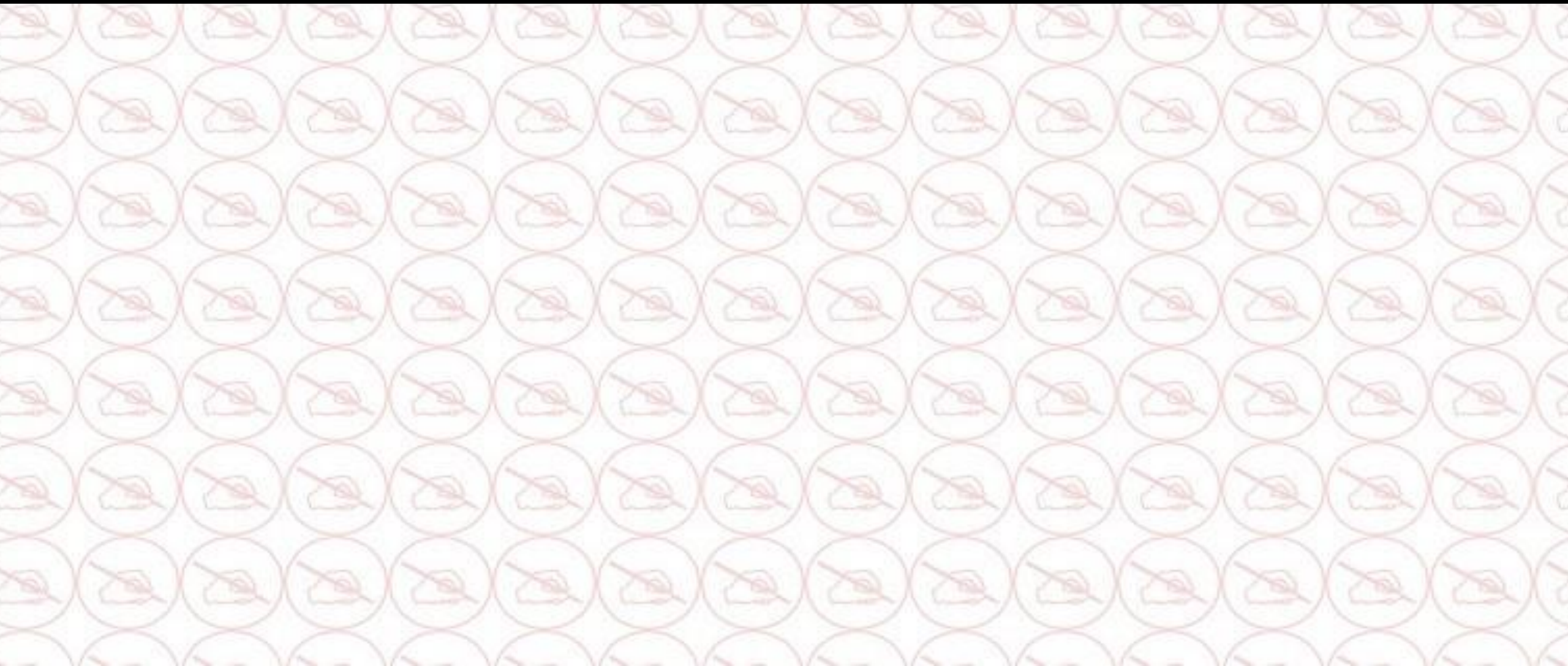
Ex: Two dice are thrown simultaneously . Find the probability of getting -(i) A sum is greater than 9 on the face of the both dice.



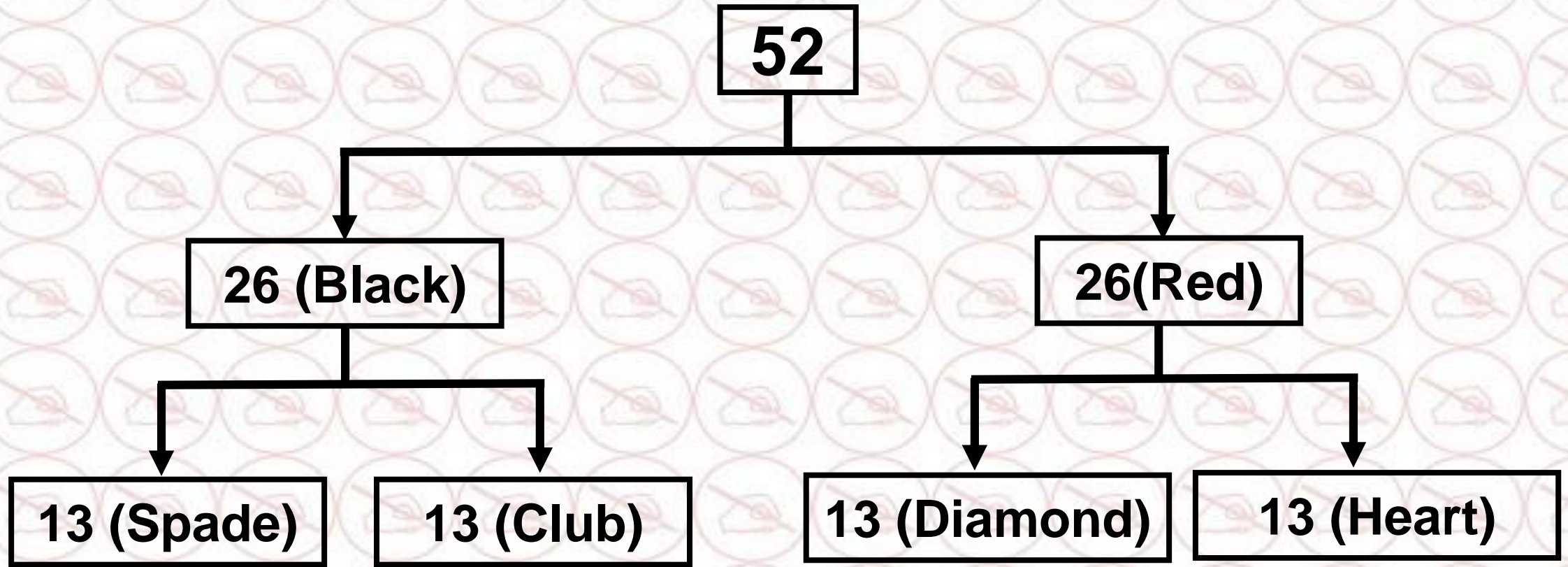
Ex: Two dice are thrown simultaneously . Find the probability of getting -(ii) A sum is divisible by 5.



Ex: Two dice are thrown simultaneously . Find the probability of getting -(iii) A sum is divisible by 4 but not by 3.



STRUCTURE OF CARDS





4 × 9 = 36 = Ordinary Cards

16 = Honour Cards

12 = Face Cards

Ex: A card is drawn from a deck of 52 cards . Find the probability of getting- (i) a King .

Sol:



Ex: From a pack of 52 cards, a card is drawn at random. Find the probability that the drawn card is a king or a queen?

Sol:



Ex: Two cards are drawn at random from a pack of 52 cards. What is the probability that either both are black or both are jack?

Sol:





MARBLES (BALLS)

Ex: A bag contains 3 red balls , 4 black balls , 5 green balls . 3 balls are drawn randomly. Find the probability of getting –
(i) All the balls are different colours.

Sol:



**Ex: A bag contains 3 red balls , 4 black balls and 5 green balls . 3 balls are drawn randomly. Find the probability of getting –
(ii) All balls are same colours.**

Sol:



**Ex: A bag contains 3 red balls , 4 black balls , 5 green balls . 3 balls are drawn randomly. Find the probability of getting –
(iii) None ball is black colours.**

Sol:



**Ex:- A bag contains 3 red balls , 4 black balls and 5 green balls . 3 balls are drawn randomly. Find the probability of getting –
(iv) All the balls are not a black.**

Sol:



**Ex:- A bag contains 3 red balls , 4 black balls and 5 green balls . 3 balls are drawn randomly. Find the probability of getting –
(v) At least 1 ball is green .**

Sol:



