



15) ताश के चार पत्ते बिना पुन स्थापित किए बायी-बायी से खींचे जाते हैं। क्या संभावना है कि चारों अक्के हों?

25th	15	16	17	18	19	20	21
26th	22	23	24	25	26	27	28
27th	29	30	.	.	.	.	.

(Four cards are drawn in succession without replacement. What is the chance that all are aces?)

Total No of Cards = 52

Prob. of drawing a Card (ace) in 1st Card = $\frac{4}{52}$

Prob. of drawing ^{second} Card (ace) in 2nd Card = $\frac{3}{51}$

Prob. of drawing third Card (ace) in 3rd Card = $\frac{2}{50}$

Prob. of drawing four Card (ace) in 4th Card = $\frac{1}{49}$

Required Probability = $\frac{4}{52} \times \frac{3}{51} \times \frac{2}{50} \times \frac{1}{49}$

Sunday 14

$$= \frac{1}{270725}$$

Prob	06	07	08	09	10	11	12
Feb	13	14	15	16	17	18	19
Mar	20	21	22	23	24	25	26
Apr	27	28	29	30	31		

Q:- 52 पत्तों की एक ताश की गड़ी से दो यादृच्छिक रूप से निकाले जाते हैं। संभावना ज्ञात करें कि एक बादशाह है और दूसरी रानी है।

MONDAY

(From a pack of 52 playing cards, two are drawn at random. Find the chance that one is king and the other is queen.)

Solution:- Total No of cards = 52

Prob. of getting one king out of 4 = $4C_1$
in first chance
= 4

Prob. of getting ^{one} ~~second~~ Queen out of 4 = $4C_1$ = 4
in second chance

$$\text{Total Probability} = \frac{4 \times 4}{52C_2}$$

$$= \frac{4 \times 4}{52 \times 51 / (52-2) \times 2}$$

$$= \frac{16 \times 8}{13 \times 51} = \frac{8}{66.3}$$

27th	*	*	01	02	03	04	05
28th	06	07	08	09	10	11	12
29th	13	14	15	16	17	18	19
30th	20	21	22	23	24	25	26
31st	27	28	29	30	31	*	*

Dice (पासे)

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WEDNESDAY

Q:- एक पासा फेंका जाता है। 4 से कम अंक प्राप्त करने की संभावना ज्ञात करें।

(A die is thrown. Find the probability of getting a digit less than 4.)

Solution:-

Total No of die = 1

Total No of digit = {1, 2, 3, 4, 5, 6}

Probabilities of getting a digit less than 4 = {1, 2, 3} = 3

Required probabilities = $\frac{3}{6} = \frac{1}{2}$

- एक पासा फेंका जाता है। (a) 3 से कम आने की प्रायिकता ज्ञात करें। (b) 4 से अधिक आने की प्रायिकता ज्ञात करें। (c) ठीक 6 आने की प्रायिकता ज्ञात करें। (d) सम संख्या आने की प्रायिकता ज्ञात करें। (e) विषम संख्या आने की प्रायिकता ज्ञात करें। (f) 3 या 5 आने की प्रायिकता ज्ञात करें।

A die is thrown. Find the probability of getting a digit (a) Less than 3 (b) more than 4 (c) exactly 6 (d) Probability of getting even Number. (e) Probability of getting odd Number. (f) Probability of getting 3 or 5 Number.

Solution: — Total No of digits = 1
 (a) Probabilities of getting Less than 3 digits = $\{1, 2\} = 2$

THURSDAY

Required Probabilities = $\frac{2}{6} = \frac{1}{3}$

(b) Probabilities of getting more than 4 = $\{5, 6\}$

$$\frac{2}{6} = \frac{1}{3}$$

(c) Probabilities of getting exactly 6 digit = $\frac{1}{6}$

(d) Probabilities of getting even digits = $\{2, 4, 6\} = \frac{3}{6} = \frac{1}{2}$

(e) Probabilities of getting odd digits = $\{1, 3, 5\} = \frac{3}{6} = \frac{1}{2}$

(f) Probabilities of getting 3 or 5 digit = $\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$

$$= \frac{1}{3}$$