

CLASS 10 MATHEMATICS

COMPLETE FORMULA SHEET

Chapter-Wise Important Formulas

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Prepared by Mathangles

Hindi Medium & English Medium

Important formula sheet

Class 10

Math's

Chapter-1 Real Numbers

Euclid's Division Lemma

Agar a aur b do positive integers hain, to:

$$a = bq + r$$

Jahan:

- q = quotient
- r = remainder
- $0 \leq r < b$

Euclid's Division Algorithm (HCF Rule)

HCF nikalne ka rule:

1. Bade number ko chhote number se divide karo
2. Remainder ko next divisor banao
3. Jab remainder 0 aa jaye

Last divisor = HCF Iska koi alag formula nahi hota, ye hi likhna hota hai

HCF nikalne ka rule:

1. Bade number ko chhote number se divide karo
2. Remainder ko next divisor banao
3. Jab remainder 0 aa jaye

Last divisor = HCF

Iska koi alag formula nahi hota, ye hi likhna hota hai

Fundamental Theorem of Arithmetic

Har composite number ko **prime numbers ke product** ke roop me likha ja sakta hai

aur ye representation **unique** hota hai.

Example (optional likh sakte ho):

$$180 = 2 \times 2 \times 3 \times 3 \times$$

4 Prime Factorisation Rule (HCF & LCM)

- **HCF** = common prime factors ki **lowest power**
- **LCM** = sabhi prime factors ki **highest power** Ye rule direct questions me use hota hai

5 HCF aur LCM ka Relation (MOST IMPORTANT)

Agar do positive numbers **a** aur **b** hain, to:

$$\text{HCF} \times \text{LCM} = a \times b$$

Board me 2-3 number ka pakka question

6. Rational Numbers - Decimal Expansion Rule

Agar p/q **lowest form** me ho:

Terminating Decimal

$$\text{Jab } q = 2^m \times 5^n$$

Example:

$$1/8 = 0.125$$

Non-terminating Repeating Decimal

Jab q me 2 aur 5 ke alawa koi aur prime factor ho

Example:

$$1/3 = 0.333...$$

7. Irrational Numbers - Rule

Jo number:

- p/q ke form me **na likha ja sake**
- jiska decimal **non-terminating aur non-repeating** ho
- Use **Irrational Number** kehte hain

Examples:

root 2, root 3, pi

Important NCERT Result (Board Theory)

root 2 ek **irrational number** hai

Is par proof NCERT me diya hota hai

Formula sheet me **sirf result** likhna hota hai

9.Quick Revision Box (1 Page Formula Sheet ke liye)

$$a = bq + r$$

$$\text{HCF} \times \text{LCM} = \text{product of two numbers}$$

Composite number = prime factors ka product

Terminating decimal $\rightarrow$ denominator = $2^m \times 5^n$

Irrational number $\rightarrow$ non-terminating, non-repeating

Chapter 2 : Polynomials

1. Polynomial ka general form

$$p(x) = a_n x^n + a_{n-1} x^{n-1} + a_{n-2} x^{n-2} + \dots + a_1 x + a_0$$

yahan $a_n \neq 0$ aur n polynomial ki degree hoti hai

2. Linear polynomial

$$p(x) = ax + b$$

$$\text{Degree} = 1$$

3. Quadratic polynomial

$$p(x) = ax^2 + bx + c$$

yahan $a \neq 0$

4. Zero of a polynomial

Agar kisi value $x = \alpha$ par $p(x) = 0$ ho jaata hai
to α polynomial ka zero kehlata hai

5. Relation between zeroes and coefficients (Quadratic polynomial)

Agar $p(x) = ax^2 + bx + c$ ho
aur uske zeroes α aur β hon, to

5.1 Zeroes ka yog

$$\alpha + \beta = -b / a$$

5.2 Zeroes ka gunan

$$\alpha\beta = c / a$$

6. Cubic polynomial ka general form

$$p(x) = ax^3 + bx^2 + cx + d$$

7. Graph se zeroes nikalne ka result

Polynomial ke zeroes un binduon ke x-coordinates hote hain
jahan graph x-axis ko cut karta hai

8. Diye gaye zeroes se polynomial banana

Agar zeroes α aur β hon, to polynomial

$$p(x) = k(x - \alpha)(x - \beta)$$

yahan $k \neq 0$ hota hai

9. Important board results

9.1 Quadratic polynomial ke adhikam 2 zeroes hote hain

9.2 Zeroes hamesha x-axis par milte hain

Chapter 3 : Pair of Linear Equations in Two Variables

1. Pair of linear equations in two variables (general form)

$$a_1x + b_1y + c_1 = 0$$

$$a_2x + b_2y + c_2 = 0$$

2. Standard form of linear equations

$$ax + by + c = 0$$

yahan a, b aur c real numbers hote hain aur $a \neq 0$, $b \neq 0$

3. Graphical solution ka result

3.1 Agar dono lines ek hi point par milti hain to ek hi solution hota hai

3.2 Agar dono lines parallel hoti hain to koi solution nahi hota

3.3 Agar dono lines coincident hoti hain to anek solutions hote hain

4. Algebraic methods of solution

4.1 Substitution method

4.2 Elimination method

4.3 Cross multiplication method

5. Cross multiplication method (IMPORTANT FORMULA)

$$x / (b_1c_2 - b_2c_1)$$

$$= y / (c_1a_2 - c_2a_1)$$

$$= 1 / (a_1b_2 - a_2b_1)$$

6. Condition of consistency (Nature of solutions)

6.1 Ek hi solution ke liye

$$a_1 / a_2 \neq b_1 / b_2$$

6.2 Koi solution nahi ke liye

$$a_1 / a_2 = b_1 / b_2 \neq c_1 / c_2$$

6.3 Anant solutions ke liye

$$a_1 / a_2 = b_1 / b_2 = c_1 / c_2$$

7. Pair of equations ko standard form me likhne ka rule

Dono equations ko $ax + by + c = 0$ ke roop me likhna zaroori hota hai

8. Special board result

Do linear equations in two variables ka solution wahi hota hai jahan unke graphs ek doosre ko intersect karte hain

Ye saare formulas Class 10 Maths Chapter 3 ke liye

UP Board aur NCERT exam ke liye complete aur sufficient hain.

good bas heading ko bold kar dena ab aap chapter 3 ke important formula do

Class 10 Maths - Chapter 3 : Pair of Linear Equations in Two Variables Important Formulas (UP Board / NCERT)

1. Pair of linear equations in two variables (General form)

$$a_1x + b_1y + c_1 = 0$$

$$a_2x + b_2y + c_2 = 0$$

2. Standard form of a linear equation

$$ax + by + c = 0$$

yahan a , b , c real numbers hote hain aur $a \neq 0$, $b \neq 0$

3. Graphical solution - Result

3.1 Agar dono lines ek hi point par intersect karti hain to ek hi solution hota hai

3.2 Agar dono lines parallel hoti hain to koi solution nahi hota hai

3.3 Agar dono lines coincident hoti hain to anant (infinite) solutions hote hain

4. Algebraic methods of solution

4.1 Substitution method

4.2 Elimination method

4.3 Cross multiplication method

5. Cross multiplication method (Main Formula)

$$\begin{aligned}x &/ (b_1c_2 - b_2c_1) \\&= y / (c_1a_2 - c_2a_1) \\&= 1 / (a_1b_2 - a_2b_1)\end{aligned}$$

6. Conditions of consistency (Nature of solutions)

6.1 Ek hi solution ke liye

$$a_1 / a_2 \neq b_1 / b_2$$

6.2 Koi solution nahi ke liye

$$a_1 / a_2 = b_1 / b_2 \neq c_1 / c_2$$

6.3 Anant solutions ke liye

$$a_1 / a_2 = b_1 / b_2 = c_1 / c_2$$

7. Equations ko standard form me likhne ka rule

Dono equations ko $ax + by + c = 0$ ke roop me likhna avashyak hota hai

8. Important board result

Do linear equations in two variables ka solution wahi hota hai jahan unke graphs ek-dusre ko cut (intersect) karte hain

Chapter 4 : Quadratic Equations

1. Quadratic equation ka standard form

$$ax^2 + bx + c = 0$$

yahan $a \neq 0$

2. Quadratic formula (MOST IMPORTANT)

$$x = \left[-b \pm \sqrt{b^2 - 4ac} \right] / 2a$$

3. Discriminant (D)

$$D = b^2 - 4ac$$

4. Roots ka nature (Discriminant ke base par)

4.1 $D > 0 \rightarrow$ Do real aur unequal roots

4.2 $D = 0 \rightarrow$ Do real aur equal roots

4.3 $D < 0 \rightarrow$ Koi real root nahi

5. Sum aur product of roots (Result)

Agar roots α aur β hon, to

$$\alpha + \beta = -b / a$$

$$\alpha\beta = c / a$$

6. Equation ko quadratic form me lane ka rule

Har equation ko $ax^2 + bx + c = 0$ ke roop me likhna zaroori hai

7. Factorisation method ka result

Agar $ax^2 + bx + c = 0$ ko factors me likh diya jaye, to

Har factor = 0 karke roots milte hain

8. Completing the square method ka result

Equation ko $(x + k)^2 = m$ ke roop me badal kar roots nikaale jaate hain

9. Important board point

Quadratic equation ke adhikam 2 roots ho sakte hain

Chapter 5 : Arithmetic Progressions (AP)

1. Arithmetic Progression (AP) ka general form

$a, a + d, a + 2d, a + 3d, \dots$

2. First term (a)

AP ka pehla pad = a

3. Common difference (d)

$d = \text{second term} - \text{first term}$

4. nth term of an AP

$a_n = a + (n - 1)d$

5. Sum of first n terms of an AP

$S_n = \frac{n}{2} [2a + (n - 1)d]$

6. Sum of n terms (jab last term l diya ho)

$S_n = \frac{n}{2} (a + l)$

7. Common difference nikalne ka formula

$d = (a_n - a) / (n - 1)$

8. Last term nikalne ka formula

$l = a + (n - 1)d$

9. Important board result

Arithmetic Progression me

har pad aur uske pichhle pad ke beech ka antar hamesha samaan hota hai

Chapter 6 : Triangles

1. Basic Proportionality Theorem (Thales Theorem)

Agar $DE \parallel BC$ ho triangle ABC me, to

$$AD / DB = AE / EC$$

2. BPT ka converse

Agar kisi triangle me

$AD / DB = AE / EC$ ho, to $DE \parallel BC$ hota hai

3. Similar triangles ka basic rule

Agar do triangles similar hon, to

unke corresponding sides ka ratio equal hota hai

4. Criteria for similarity of triangles

4.1 AA similarity

4.2 SAS similarity

4.3 SSS similarity

5. Ratio of areas of similar triangles

Agar do triangles similar hon, to

Area of triangle 1 / Area of triangle 2

$$= (\text{Side 1} / \text{Side 2})^2$$

6. Pythagoras Theorem

Right-angled triangle me

$$(\text{Hypotenuse})^2 = (\text{Base})^2 + (\text{Perpendicular})^2$$

7. Converse of Pythagoras Theorem

Agar kisi triangle me

$$(\text{Hypotenuse})^2 = (\text{Base})^2 + (\text{Perpendicular})^2 \text{ ho,}$$

to triangle right-angled hota hai

8. Important board result

Similar triangles me

Corresponding angles barabar hote hain

Chapter 7 : Coordinate Geometry

1. Distance formula

Do binduon $A(x_1, y_1)$ aur $B(x_2, y_2)$ ke beech ki doori

$$= \sqrt{[(x_2 - x_1)^2 + (y_2 - y_1)^2]}$$

2. Section formula (Internal division)

Agar koi bindu P , $A(x_1, y_1)$ aur $B(x_2, y_2)$ ko

$m : n$ ke anupaat me andar se baantta ho, to

$$P(x, y) =$$

$$((m x_2 + n x_1) / (m + n) , (m y_2 + n y_1) / (m + n))$$

3. Mid-point formula

Agar $m = n$ ho, to

Mid-point =

$$((x_1 + x_2) / 2 , (y_1 + y_2) / 2)$$

4. Area of triangle (Coordinate geometry)

Teen binduon $A(x_1, y_1)$, $B(x_2, y_2)$, $C(x_3, y_3)$ se bane triangle ka area

$$\text{Area} = 1/2 | x_1(y_2 - y_3) + x_2(y_3 - y_1) + x_3(y_1 - y_2) |$$

5. Collinearity condition

Agar upar diye gaye formula se

triangle ka area = 0 aaye,

to teenon bindu collinear hote hain

Chapter 8 : Introduction to Trigonometry

1. Trigonometric ratios (Right-angled triangle)

$$1.1 \sin \theta = \text{Perpendicular} / \text{Hypotenuse}$$

$$1.2 \cos \theta = \text{Base} / \text{Hypotenuse}$$

$$1.3 \tan \theta = \text{Perpendicular} / \text{Base}$$

$$1.4 \operatorname{cosec} \theta = \text{Hypotenuse} / \text{Perpendicular}$$

$$1.5 \sec \theta = \text{Hypotenuse} / \text{Base}$$

$$1.6 \cot \theta = \text{Base} / \text{Perpendicular}$$

2. Reciprocal relations

$$2.1 \sin \theta = 1 / \operatorname{cosec} \theta$$

$$2.2 \cos \theta = 1 / \sec \theta$$

$$2.3 \tan \theta = 1 / \cot \theta$$

3. Quotient relation

$$3.1 \tan \theta = \sin \theta / \cos \theta$$

$$3.2 \cot \theta = \cos \theta / \sin \theta$$

4. Trigonometric ratios of standard angles

$$4.1 \theta = 0^\circ$$

$$\sin 0^\circ = 0$$

$$\cos 0^\circ = 1$$

$$\tan 0^\circ = 0$$

$$4.2 \theta = 30^\circ$$

$$\sin 30^\circ = 1/2$$

$$\cos 30^\circ = \sqrt{3}/2$$

$$\tan 30^\circ = 1/\sqrt{3}$$

$$4.3 \theta = 45^\circ$$

$$\sin 45^\circ = 1/\sqrt{2}$$

$$\cos 45^\circ = 1/\sqrt{2}$$

$$\tan 45^\circ = 1$$

$$4.4 \theta = 60^\circ$$

$$\sin 60^\circ = \sqrt{3}/2$$

$$\cos 60^\circ = 1/2$$

$$\tan 60^\circ = \sqrt{3}$$

$$\sin 90^\circ = 1$$

$$\cos 90^\circ = 0$$

$$\tan 90^\circ = \text{not defined}$$

5. Cosec, Sec, Cot values of standard angles

$$5.1 \operatorname{cosec} 30^\circ = 2$$

$$5.2 \operatorname{cosec} 45^\circ = \sqrt{2}$$

$$5.3 \operatorname{cosec} 60^\circ = 2/\sqrt{3}$$

$$5.4 \sec 30^\circ = 2/\sqrt{3}$$

$$5.5 \sec 45^\circ = \sqrt{2}$$

$$5.6 \sec 60^\circ = 2$$

$$5.7 \cot 30^\circ = \sqrt{3}$$

$$5.8 \cot 45^\circ = 1$$

$$5.9 \cot 60^\circ = 1/\sqrt{3}$$

6. Important board results

$$6.1 \tan 0^\circ = 0$$

$$6.2 \tan 90^\circ \text{ is not defined}$$

$$6.3 \sin 0^\circ = 0, \cos 0^\circ = 1$$

$$6.4 \sin 90^\circ = 1, \cos 90^\circ = 0$$

Chapter 9 : Trigonometric Identities

Basic Trigonometric Identities (MOST IMPORTANT)

$$1 \sin^2\theta + \cos^2\theta = 1$$

$$1 + \tan^2\theta = \sec^2\theta$$

$$1 + \cot^2\theta = \operatorname{cosec}^2\theta$$

1. Identity se nikle hue important results

$$\sin^2\theta = 1 - \cos^2\theta$$

$$\cos^2\theta = 1 - \sin^2\theta$$

$$\tan^2\theta = \sec^2\theta - 1$$

$$\cot^2\theta = \operatorname{cosec}^2\theta - 1$$

2. Reciprocal identities (Revision)

$$3. \sin \theta = 1 / \operatorname{cosec} \theta$$

$$\cos \theta = 1 / \sec \theta$$

$$\tan \theta = 1 / \cot \theta$$

4. Quotient identities (Revision)

$$\tan \theta = \sin \theta / \cos \theta$$

$$\cot \theta = \cos \theta / \sin \theta$$

5. Important board result

6. Kisi bhi trigonometric identity ko prove karte samay
sirf LHS ko simplify karke RHS banana hota hai

Chapter 10 : Heights and Distances

1. Basic height-distance relation

$$\text{Height} / \text{Base} = \tan \theta$$

2. Height nikalne ka formula

$$\text{Height} = \text{Base} \times \tan \theta$$

3. Distance nikalne ka formula

$$\text{Distance} = \text{Height} / \tan \theta$$

4. Angle of elevation

Jab vastu aankh ke star se upar ho,
to banne wala kon = angle of elevation

5. Angle of depression

Jab vastu aankh ke star se neeche ho,
to banne wala kon = angle of depression

Chapter 11: Circles

1. Tangent ki definition (Result)

Tangent ek rekha hoti hai jo circle ko **sirf ek hi bindu** par sparsh karti hai

2. Radius-Tangent Theorem (MOST IMPORTANT)

Circle ke kisi bhi bindu par
tangent us bindu par khinchi gayi radius par **lamb (perpendicular)** hoti hai

3. Radius-Tangent Converse Theorem

Agar koi rekha circle ke kisi bindu par
us bindu par khinchi gayi radius par lamb ho,
to wahi rekha circle ki tangent hoti hai

4. Ek bahari bindu se khinchi gayi tangents ka theorem

Circle ke bahar sthit kisi ek bindu se
circle par khinchi gayi **dono tangents ki lambai barabar** hoti hai

5. Equal Tangents Theorem (Symbolic form)

Agar PA aur PB
ek hi bahari bindu P se circle par khinchi gayi tangents hon, to
 $PA = PB$

6. Angle between radius and tangent

Radius aur tangent ke beech ka kon
hamesha **90°** hota hai

7. Important construction result

Circle ke bahar sthit kisi bindu se
circle par do hi tangents khinchi ja sakti hain

8. Board use theorem

Tangent se sambandhit saare proof
radius-tangent perpendicular theorem par adharit hote hain

9. Quick revision results (Formula sheet ke liye)

9.1 Tangent ek bindu par hi circle ko sparsh karti hai

9.2 Radius $\perp$ Tangent

9.3 Ek hi bahari bindu se tangents barabar hoti hain

Chapter 12 : Constructions

1. Line segment ko diye gaye ratio me divide karna (Internal division)

Ek line segment AB ko
 $m : n$ ke ratio me andar se divide kiya ja sakta hai
jahan m aur n positive integers hote hain

2. Line segment ko diye gaye ratio me divide karna (External division)

Ek line segment AB ko
 $m : n$ ke ratio me bahar se divide kiya ja sakta hai

3. Triangle ke similar triangle ka construction

Diye gaye triangle ke
 $m : n$ ke ratio ka similar triangle
construct kiya ja sakta hai

4. Triangle ke smaller similar triangle ka result

Agar $m < n$ ho, to
banaya gaya triangle
diye gaye triangle se chhota hoga

5. Triangle ke bigger similar triangle ka result

Agar $m > n$ ho, to

banaya gaya triangle

diye gaye triangle se bada hoga

6. Tangent to a circle (MOST IMPORTANT)

Circle ke bahar sthit kisi bindu se

circle par **do tangents** construct ki ja sakti hain

7. Tangent construction ka base theorem

Tangent ka construction

radius $\perp$ tangent

ke principle par adharit hota hai

8. Important board result

Constructions ke questions me

diagram ki safai aur

steps ka sahi kram

poore marks ke liye avashyak hota hai

9. Practical exam point

Har construction me

steps likhna zaroori hota hai

sirf diagram se full marks nahi milte

Chapter 13 : Areas Related to Circles

10.

Circle ka area

$$\text{Area} = \pi r^2$$

11.

Circle ki paridhi

(Circumference)

$$\text{Circumference} = 2\pi r$$

12.

Sector ka area

$$\text{Area of sector} = (\theta / 360) \times \pi r^2$$

yahan θ centre par banne wala kon (degree me) hai

13.

Sector ki arc length

$$\text{Length of arc} = (\theta / 360) \times 2\pi r$$

14.

Segment ka area

$$\text{Area of segment} = \text{Area of sector} - \text{Area of triangle}$$

15.

Minor segment

$$\text{Minor segment ka area} =$$

$$\text{Area of corresponding sector} - \text{Area of triangle}$$

16.

Major segment

$$\text{Major segment ka area} =$$

$$\text{Area of circle} - \text{Area of minor segment}$$

17.

Semi-circle ka area

$$\text{Area} = (1/2) \times \pi r^2$$

18.

Quarter circle ka area

$$\text{Area} = (1/4) \times \pi r^2$$

19.

10. Annulus (ring) ka area

$$\text{Agar outer radius} = R$$

$$\text{aur inner radius} = r \text{ ho, to}$$

$$\text{Area} = \pi(R^2 - r^2)$$

20.

Important board results

11.1 Area nikalte samay π ki value

= $22/7$ ya 3.14 (question ke hisaab se)

11.2 Area hamesha square units me hota hai

Chapter 14 : Surface Areas and Volumes

1. **Cube**

1.1 Curved Surface Area (CSA)

$$\text{CSA} = 4a^2$$

1.2 Total Surface Area (TSA)

$$\text{TSA} = 6a^2$$

1.3 Volume

$$\text{Volume} = a^3$$

2. **Cuboid**

2.1 Curved Surface Area (CSA)

$$\text{CSA} = 2h(l + b)$$

2.2 Total Surface Area (TSA)

$$\text{TSA} = 2(lb + bh + hl)$$

2.3 Volume

$$\text{Volume} = l \times b \times h$$

3. **Right Circular Cylinder**

3.1 Curved Surface Area (CSA)

$$\text{CSA} = 2\pi rh$$

3.2 Total Surface Area (TSA)

$$\text{TSA} = 2\pi r(r + h)$$

3.3 Volume

$$\text{Volume} = \pi r^2 h$$

4. Right Circular Cone

4.1 Slant height

$$l = \sqrt{r^2 + h^2}$$

4.2 Curved Surface Area (CSA)

$$\text{CSA} = \pi r l$$

4.3 Total Surface Area (TSA)

$$\text{TSA} = \pi r(l + r)$$

4.4 Volume

$$\text{Volume} = (1/3)\pi r^2 h$$

5. Sphere

5.1 Curved Surface Area (CSA)

$$\text{CSA} = 4\pi r^2$$

5.2 Volume

$$\text{Volume} = (4/3)\pi r^3$$

6. Hemisphere

6.1 Curved Surface Area (CSA)

$$\text{CSA} = 2\pi r^2$$

6.2 Total Surface Area (TSA)

$$\text{TSA} = 3\pi r^2$$

6.3 Volume

$$\text{Volume} = (2/3)\pi r^3$$

7. Combination of Solids (Important Result)

Agar solid do ya zyada shapes se bana ho, to

7.1 Total Volume = sabhi parts ke volumes ka yog

7.2 Total Surface Area = sirf bahari exposed surface ka area

8. Unit Conversion Result

8.1 $1 \text{ m} = 100 \text{ cm}$

8.2 $1 \text{ m}^3 = 10^6 \text{ cm}^3$

8.3 Volume hamesha cubic units me hota hai

8.4 Surface area hamesha square units me hota hai

9. Important board points

9.1 π ki value question ke anusaar

= $22/7$ ya 3.14

9.2 Height, radius, length same unit me honi chahiye

Chapter 15 : Statistics

1. Mean by Direct Method

$$\text{Mean} = \Sigma fx / \Sigma f$$

2. Mean by Assumed Mean Method

$$\text{Mean} = a + (\Sigma fd / \Sigma f)$$

yahan

$$d = x - a$$

3. Mean by Step Deviation Method

$$\text{Mean} = a + (\Sigma fu / \Sigma f) \times h$$

yahan

$$u = (x - a) / h$$

4. Class mark (Mid-value)

$$\text{Class mark} = (\text{Upper limit} + \text{Lower limit}) / 2$$

5. Continuous frequency distribution banane ka rule

Continuous classes ke liye

Upper limit aur next lower limit ke beech ka antar

= class size

6. Class width (h)

h = class interval ka size

7. Important board results

7.1 Mean hamesha observation ke beech ka ek value hota hai

7.2 Mean nikalte samay sabhi x aur f values ka use hota hai

7.3 Σf = total frequency

Chapter 16 : Probability

1. Probability ka basic formula

$P(E) = \text{Number of favourable outcomes} / \text{Total number of possible outcomes}$

2. Probability ki value ka range

$$0 \leq P(E) \leq 1$$

3. Sure event (Certain event)

$$P(\text{Sure event}) = 1$$

4. Impossible event

$$P(\text{Impossible event}) = 0$$

5. Complementary event

Agar E koi event ho, to

$$P(\text{not } E) = 1 - P(E)$$

6. Equally likely outcomes ka rule

Jab sabhi outcomes barabar sambhavana wale hon,
tab hi probability ka formula directly apply hota hai

7. Total outcomes nikalne ka rule

Total outcomes = sample space ke sabhi possible cases

8. Important board results

8.1 Probability hamesha ek number hota hai, percentage nahi

8.2 Probability kabhi negative nahi hoti

8.3 Probability 1 se zyada nahi hoti

END>>>

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